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A TEXT-BOOK

IN THE

HISTORY OF EDUCATION



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A TEXT-BOOK

IN THE

HISTORY OF EDUCATION

BY

PAUL MONROE, PH.D.

PROFESSOR IN THE HISTORY OF EDUCATION, TEACHERS COLLEGE
COLUMBIA UNIVERSITY
AUTHOR OF "SOURCE BOOK IN THE HISTORY OF EDUCATION FOR THE GREEK AND ROMAN PERIOD," OF "THOMAS PLATTER AND THE EDUCATIONAL RENAISSANCE OF THE SIXTEENTH CENTURY," ETC.

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TO

MISS GRACE HOADLEY DODGE

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PREFACE

PROFESSEDLY a text-book, this volume, while not pretending to be an exhaustive history of the subject, aims to give more than a superficial outline containing a summary of trite generalizations. The merits which the author has sought to incorporate are (1) to furnish a body of historical facts sufficient to give the student concrete material from which to form generalizations; (2) to suggest, chiefly by classification of this material, interpretations such as will not consist merely in unsupported generalizations; (3) to give, to some degree, a flavor of the original sources of information; (4) to make evident the relation between educational development and other aspects of the history of civilization; (5) to deal with educational tendencies rather than with men; (6) to show the connection between educational theory and actual school work in its historical development; (7) to suggest relations with present educational work.

Containing as it does three or four times the material incorporated in the text-books now in use in American schools, the extent of the work is justified in the opinion of the author by the greater interest to be aroused in the student by concrete material bearing upon school life and connecting it with more or less familiar historical situations, and by the broader basis which it will furnish the instructor for his work. This more extended treatment will require but little more effort upon the part of the student, while at the same time it will give him far greater insight into the meaning of educational

theories and practices and their relation to the social life of the times.

It is the belief of the author that the need of the student is to grasp great movements as they manifest themselves in thought and practice, and that a text-book which emphasizes these movements is more helpful than one which aims to give all the facts and which, in so doing, presents a multitude of men with diverse ideas and a multiplicity of phenomena with little basis of organization. Hence, to carry out his purpose, the author has selected only such men and such facts as have to do with typical movements, and which consequently influence present thought and life. Many men are slighted who in themselves are prominent enough, but who contribute little to a dominant movement or add but little to the ideas already presented. In giving the ideal of Roman education, the analysis of the training of the orator by Tacitus or Cicero, though quite as important as that of Quintilian, would have added little to the present discussion. So, too, there could have been added Protagoras, Seneca, a multitude of writers in the later Middle Ages, of the Renaissance, and of each modern period; but they are omitted in the fixed belief that more is to be gained through very definite conceptions concerning a comparatively few leaders than through a mass of more or less unrelated detail concerning great numbers of those who from the particular point of view of the text are comparatively unimportant. In a similar way, through lack of space, many interesting illustrative quotations are abbreviated or eliminated altogether. It is, however, the design of the author later to supplement this text with a series of source books illustrating the development of educational thought and practices. The first of these, that for the Greek and Roman period, has already been published.

The needs of the student of the history of education are to acquire a sufficient body of fact concerning the educational

practices of the past; to develop an ability to interpret that experience in order to guide his own practice; to exercise his judgment in estimating the relation existing between various theories and corresponding practices; and, above all, to obtain a conception of the meaning, nature, process, and purpose of education that will lift him above the narrow prejudices, the restricted outlook, the foibles, and the petty trials of the average schoolroom, and afford him the fundamentals of an everlasting faith as broad as human nature and as deep as the life of the race.

Under each general topic treated enough material is given to elucidate the main characteristic. For the same purpose the contributions of two or three of the most representative men are discussed. The restrictions of space and the working conception adopted by the author forbid further elaboration of material, especially that of a biographical character. Consequently the text at almost every point aims to be suggestive rather than exhaustively conclusive. This fact will be evident to all in the treatment of those topics that come within the limits of recent experience. To the student familiar with the historical field this is no less evident in the earlier than in the later chapters.

It is not intended that answers to the lists of questions appended to each chapter should be worked up from this text. They are suggestive of further work, of an intensive character, which may be done by the student with time and material at his disposal. Should the text itself furnish all the material that can well be used in the time allotment at the disposal of the class, these questions may be entirely disregarded.

So, too, the reference lists, which are limited wholly to the educational literature in English and that of the most accessible and helpful, are merely suggestive. For an exhaustive bibliography the student is referred to Professor Cubberley's

excellent *Syllabus of the History of Education*, or for further suggestion not so elaborate to the pamphlet *Syllabus* prepared by the author to accompany this book.

For helpful criticisms on the manuscript I desire to express my obligation to Mr. Theodore C. Mitchill and to my colleague, Professor John A. MacVannel. I am indebted to Miss Izora Scott for the index.

PAUL MONROE.

NEW YORK,
August, 1905.

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HISTORY OF EDUCATION

CHAPTER I

PRIMITIVE EDUCATION. EDUCATION AS NON-PROGRESSIVE ADJUSTMENT

SIGNIFICANCE OF PRIMITIVE EDUCATION. — Primitive society reveals education in its simplest form; yet in this early stage the educational process possesses all the essential characteristics that it reveals in its most highly developed stage. Here, where life lacks the complexity of all more highly developed forms of culture, the elements entering into that general conception of life which constitutes the goal of the education of the individual are simple in nature and few in number. The means elaborated for assisting or compelling the individual to conform to these general requirements, which are the conditions he must fulfill in order to live with his fellows, are for the most part brought to bear upon the individual unconsciously. When such means are consciously applied, they are direct in their influence and general in their nature. No system of schools is to be found. No body of knowledge or subjects of study, that serve indirectly as a basis for conduct of life, have yet been organized. The method employed throughout is simple, unconscious imitation. Only in the highest stages of primitive life, where it passes from the barbarian to that stage of culture which we call civilization, does the method of instruction appear. While the student is directly concerned in the educational processes of more highly developed peoples, wherein these factors are so elaborated that the essential features of either purpose, institutional means, or

social or psychological method are difficult to discover because of this very complexity, and wherein the resulting influences on both individual and society are thus more difficult to analyze, a brief preliminary survey of education in primitive society will be of value because of this simplicity.

DOMINANT CHARACTERISTICS OF PRIMITIVE LIFE. ANIMISM. — But in order to comprehend the aim or purpose of education with any people it becomes necessary to discover those dominant institutional characteristics and cultural ideas which give shape or purpose to the educational process.

Primitive peoples, however diverse they may be in many respects, possess one fundamental bond of similarity. It is that interpretation of their environment which we call animism. Back of every material existence or phenomenal reality the savage posits an immaterial power, a spiritual entity, a "double," which controls the material object, explains its being and its resistance to the will of man, and makes it an abode of a consciousness no different in kind from the consciousness which he himself possesses. Not that this belief is the result of long reflection, but rather that the primitive man has not become fully conscious of self and does not differentiate psychologically between his own existence and all other phenomenal existence, animate or inanimate. In his dreams he experiences with all the vividness of his waking hours the excitement of the chase, of the military expedition, and other activities. This indicates to him that his spirit or double has been in other places, though his comrades convince him that his body has not moved. The trance, swoon, or various forms of insensibility, to which his life of force renders him especially liable, together with somnambulism, demonstrate further that the double may leave the body to return at will; death but indicates that the double is unwilling to return or has lost its way, and hence taken up its abode in some other body or object. Rare cases of insanity, idiocy, or

epilepsy furnish still further evidence that the body and double are separable entities, since in these cases a foreign or hostile spirit has taken possession of a body not its own. To his dog, his horse, his canoe, his weapons of warfare and chase, he attributes a similar double. For does he not use them in his dreams? Do they not cast a shadow as he himself does? And do they not at times seemingly thwart his will as if possessed of a hostile spirit? Therefore at death his horse and dog are killed; perhaps his canoe, even his wife, is burned, or his weapons and household utensils are buried with the body in order that their doubles may serve his double as of yore. To his spirit, offerings of food and other necessities of this life are made until the time when the remembrance of him is lost in the worship of the multitude of ancestral spirits that throng the air or inhabit the sensible objects that form the universe of the family or clan.

Thus the primitive man explains the processes of the world around him; each material object, whether sensible or insensible from our point of view, is by him in his unreflective way endowed with consciousness. Through its double each feels and thinks and has the power of volition, as he himself has. The world of doubles is an immaterial counterpart of the world of material objects. Thus do ordinary processes of life and nature find their explanation; extraordinary happenings, in a similar way, but indicate the interventions of such spirits, friendly if the occurrences are fraught with good results, hostile if accompanied by evil consequences.

NATURE OF EDUCATION OF PRIMITIVE MAN DETERMINED BY THIS DOMINANT SOCIAL CHARACTERISTIC. — The life of the primitive man consists in acquiring the means for the satisfaction of the wants of the body — food, clothing, and shelter; and, on the other hand, in placating, controlling, or avoiding the enmity of the world of spirits through forms of worship. Since every sort of food, every tree or plant

that furnishes materials for shelter or clothing, every weapon or implement, has a ghostly double that must be controlled before the object itself can yield the satisfaction desired, the simplest needs of life become clothed with dreadful import, and the satisfaction of these needs entails an elaborate procedure designed not only to secure the service or object desired, but also to placate or control its double. While in the ordinary incidents of life the spirits are placated by the particular manner in which the desired object is acquired or used, there yet remain those procedures of a more general sort for appeasing the spirit world preparatory to a hunt, an expedition, a harvest, and a multitude of occasions aside from the routine of life.

The education of the primitive man consists, then, in these two processes. The *first* is the training necessary to the satisfaction of the practical necessities of life. This training consists not alone in learning how to accomplish the object, — that is, to hunt, fish, use weapons, prepare skins, and secure shelter, but, as well, how to do each of these things in that definite prescribed way which, through the experience of the clan or family, — as interpreted by the shaman, exorcist, medicine man, or whatever the functionary may be called, — has been found to avoid offending the doubles that preside over these material things, and thus to accomplish the results desired. The *second* is the training in the elaborate procedures, or forms of worship, through which it is necessary that every member of the group shall go in his endeavor to placate the spirit world, or to cultivate its good will. Each process consists in acquiring a definite procedure or form of action appropriate to every experience, commonplace or extraordinary, in the life of the individual and of the group. The former process constitutes his practical education; the latter, his theoretical education. From the latter comes the primitive explanation of things; for animism is for the primitive man religion, philosophy, and science all in one. In truth,

it is from these germs that philosophy, science, and the natural religions have evolved.

The theoretical education of the primitive man, however much it may differ from the theoretical education of civilized man, is the same in kind and in purpose. Through it he endeavors to obtain an explanation of life, a conception of reality, an understanding of Nature and her processes, and of the relation of the material to the immaterial world. As the modern scientist attributes to matter the possession of certain forces, such as chemical affinity, molecular attractions, electrical currents, and expresses them by symbols in order to explain their actions and thus control them for his own purposes, so the primitive man attributes to all material forms the possession of doubles, as an explanation of their relation to him, that through their doubles or their symbols he may control them for his own use. It is through this theoretical education with primitive as well as with civilized man that the practical world is explained; and it is only through advance in the theoretical education — this explanation of things — that progress in practical education is rendered possible.

This being the nature of the educational process in primitive society, the aim of education — if an *aim* may be spoken of where the process is wholly unconscious — is to adjust the individual to his material and immaterial environment through established or fixed ways of doing things in regard both to work and to worship. It is the group way of doing things that is forced upon primitive man. Neither man nor the group is vividly conscious of the individual, certainly not of his rights and his welfare as distinct from that of the group. Hence, dominated as it is on every hand by custom and tradition, the education of the primitive man is so prescribed in its minutest detail that he has far less freedom than man usually possesses in higher stages of culture.

FORMATION OF MEANS FOR ATTAINMENT OF EDUCATIONAL ENDS. — Since with the primitive man there is little consciousness of individuality, and since the aim of education is accomplished when the individuality completely disappears in the customary, prescribed way of doing things, there is little necessity for, certainly little achievement in, the elaboration of a machinery of education. The welfare of the group without consciousness of the rights of the individuals which compose it, is the end; and this is an end to be accomplished through the most general social institutions.

Practical Education. — The fundamental social institution itself — the family — is in the earliest stage the sole educational institution. From this very fact it must ever remain the institution where the process of education must begin, and where the ultimate responsibility for the most general phases of the process must rest. When the practical processes of obtaining the necessities of life are rendered more definite and more highly developed by the first division of labor, the process of training in these procedures is also more clearly defined. Such training, however simple, is given in particular lines by the more specialized portions of the family or clan group. The primary division of labor, that between man and woman, necessitates that training in warfare and the chase should be given by the men; that training in the preparation of food and clothing and the securing of shelter should be given by the women. But even with the subsequent stage, when special ability in making weapons, in tattooing, in fishing, in weaving, in curing hides, etc., made far more definite this division of labor, and when the latter became the means for practical education, nevertheless the process remains one of unconscious imitation. Later in the transition from primitive life to the lower stages of civilization, as these specialized callings became fixed in given families and it became desirable to transmit the specialized abilities from father to son, a further step in the evolution of

the educational process takes place in the formation of the caste system. Even yet, though now a conscious process, it is little more than imitation. Nor can the caste system be considered as primarily an educational system in the narrower sense of the word. Caste is at basis a form of social organization, the function of which is comparable to that of the family though on somewhat more general lines. Education on the practical side has now developed a definite institutional organization, though of a most general character. So far as the individual is concerned, however, education is still non-progressive, for there is no development in aim or conception of education, or of individual life, and little change in method.

Theoretical Education. — On the side of theoretical education, — that which sought to explain the problems and difficulties of practical education as well as those of life in general, — the means are somewhat more definite and the development more rapid. This phase of education has to do with that interpretation of the environing world of the savage and with his adjustment to that world of spirits which was complementary at every point to the material world. As remotely as the life of primitive man can be traced, the knowledge of how so to direct conduct that the demands of the spirit world would be met is found to be in the hands of a specialized class, — the shamans, wizards, exorcists, medicine men, or familiars of whatever name. The direction of the conduct of the tribe, both in special practical affairs and in the forms of worship, constitutes the earliest theoretical education of the race. At this stage there is seldom any attempt at explanation of these procedures; there is simply the determination of the act to be performed, and the method of performing it, — the *what* to do and the *how* to do it.

It is but natural that the friendly spirits should be in largest number those of departed ancestors. These are yet members of the family group, inhabiting some object or

objects associated with the family dwelling place. In time this is the family altar. Therefore, when the conditions of life become somewhat less harsh, and hence the friendly spirits become more numerous, religious ceremony, worship, incantation, or whatever it may be termed, gradually ceases to be so closely connected with the clan as with the small family group. This worship then devolves upon the patriarchal father — the head of the family group — composed as that group is of many aggregates such as the modern family. The father then becomes the one who trains the younger generation in the formal conduct of life, — in the proper way of doing things. This constitutes their education. Though the shaman or interpreter of an unfriendly spirit world yet exists, his office becomes of less importance; in fact, it becomes of import only on special occasions, and is similar in function to the office of the Hebrew prophet at a higher stage of social development. In this latter stage, since the duties of the patriarchal father have multiplied in the form of military, judicial, and political responsibilities, the priestly functions have become yet further specialized. With the formation of a special priesthood we find the first class whose office is distinctly educational. In three respects this advance in educational function may be recognized. These are the formation of a teaching class, of a subject-matter of education, and of language and literature as a basis.

A Teaching Class. — Religious teaching, now in the hands of the priests, yet relates, as did that of the earlier stage, to the interpretation of the relation of the practical processes of this life to the spirit world — now definitely recognized as a life to come. This interpretation now calls for the inculcation of a body of doctrines and a training in an elaborate ceremonial or ritual. The doctrine becomes embodied in a system of general truths with concrete applications, both of which require instruction or at least training of the multi-

tude by the priests. The ceremonial entails the training of the people in peculiar methods of performing ordinary activities of life, such as those relating to selection and preparation of articles of food, to character of dress, and the like, as well as in dancing, singing, the making of sacrifices and offerings. These are familiar to us through the Hebrew scriptures.

Subject-matter for Study. — But above and beyond this educational function of the priesthood is another one, — the special interpretation of these doctrines to the prospective members of the priesthood themselves. Here has grown up in many instances an esoteric doctrine that is far different from that imparted to the multitude. The training of the multitude yet consists in indicating the "What to do," and the "How to do it"; while in that of the priesthood itself, is added the "Why it should be done." This inquiry into the meaning of these ceremonials and the attempt at a further interpretation of doctrines beyond that given to the multitude, gives rise to the first real processes of instruction and the first distinct educational institutions. Though it is yet but a "school for priests," this instruction of the prospective priests by the priesthood constitutes a school in the modern conception of the term. Among the ancient Egyptians and Chaldeans, even before Abraham was called from Ur, these schools first appeared. In other words, at the very dawn of history these people are found to have passed from the stage of barbarism to that of the earliest civilization.

This elaboration of an esoteric doctrine further gives rise both to intellectual development and intellectual differentiation. Out of this inquiry, as is clearly seen among the early Egyptians, grow the cosmologies, the early philosophies, the mathematical, the physical, and the biological sciences. Through this study the priesthood advance from a wholly animistic or spiritualistic interpretation to one partly meta

physical and even, as is evidenced in the anatomical and hygienic ideas of the Egyptian priesthood, to an interpretation partly scientific. Some of this occult meaning is hidden in the formal teaching to the multitude, as in the case of the hygienic values of the ceremonial of both Hebrew and Egyptian.

A Literary Basis. — The third respect in which the advance in educational function by the priesthood at this stage is to be seen is in the invention of a written language. With the elaboration of a body of doctrine and ceremonial, and the philosophical, cosmological, and scientific interpretations, it becomes necessary to commit them to permanent form, either through the invention or the borrowing of a written language. An elaborate literature quickly results, and offers the basis or means of a formal education. In addition to this body of orthodox and formal interpretation to be given to the multitude, theoretical education has become, on the part of the priesthood the mastery of the written language and of this literature which contains for them, as our literature does for us, the culture history of the race. This culture history is the sum of human experience in testing the values and the meaning of life.

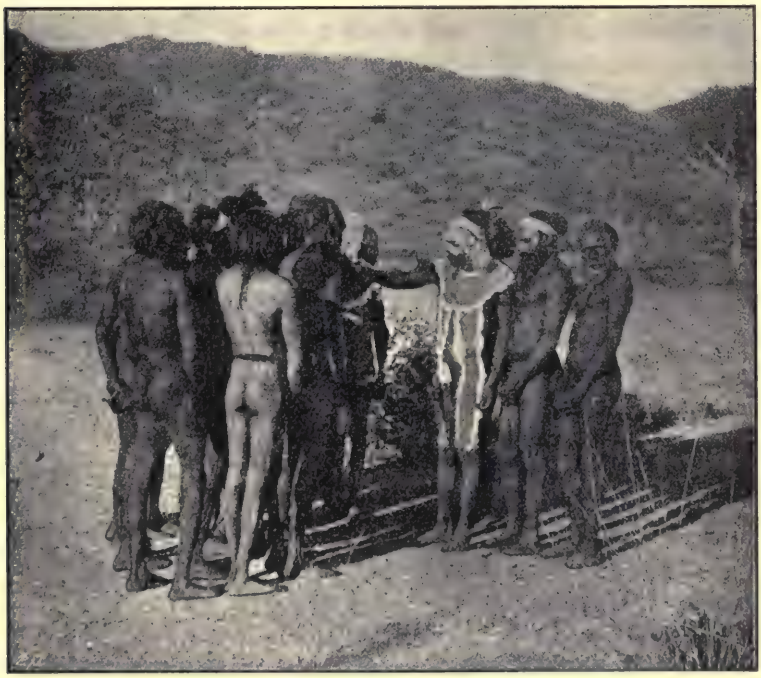
METHOD OF PRIMITIVE EDUCATION. — Little remains to be added in regard to method. On the practical side, as we have seen, primitive man never, save in sporadic instances and in the highest stage, rose to the conscious process of instruction. Even the training given, where at best there is no attempt at explanation or interpretation but where merely the thing to do and the process of doing are indicated, is for the most part purely unconscious imitation. The child learns how to shoot with bow and arrow, how to dress the animal slain, how to cook, how to weave, how to make pottery, merely by observation and by using the 'trial and success' method. Repeated imitation with successively fewer failures

gives to the primitive child about all he acquires in the way of arts. With the development of caste, or even with a less highly developed division of labor, this process of imitation becomes conscious; but never as a common practice does primitive life reveal to us a rationalized process of instruction. In fact, the method, both social and individual, is often most irrational. This fact is illustrated in the development in pottery making. Discovering first, through the accidental burning of a willow basket from around the clay bowl within which liquids were kept, that the clay would harden and become liquid proof, the primitive man for generations continued to make pottery by first making the willow basket, plastering it over with clay, and then burning out the wooden model. By accident again discovering that the clay could be shaped direct, he continued for generations to impress the stamp of the unwoven willow upon the clay, that it might be burned in, though he made no willow model or form.

Whereas almost every other ordinary phase of life is pictured out in permanent form, drawings or carvings of processes of instruction are wholly wanting. Of similar significance is the inability of barbarian people in our own time to give such illustration or explain the process by which the young are given the knowledge of these practical procedures in life.

On the theoretical side the same method of blind imitation prevails. Only when there is evolved a definite class with priestly function necessitating the education of a special class in the lore of the priesthood, does there come to be instruction in the sense of the attempt to discover and to impart why the things should be done as well as merely to indicate the action to be imitated or the doctrine or belief to be accepted. For the most part the only formal instruction of this kind is that given by the shamans or medicine men to the adolescent youth, who are taken aside for some days previous to their entrance into full membership in the tribe to

be instructed in the secrets of their people. Dwelling under the obligation of secrecy, — even in many cases prohibited from speaking during the entire period though it may be many weeks in length, — the youth comes into possession of the wisdom of his people — their attempts at the interpreta-



THE INITIATION OF THE YOUTH BY THE SHAMANS OF A CENTRAL AUSTRALIAN TRIBE.

tion of this life through its relationship to the world of spirits. Very significant is the term "initiation" given by anthropologists to these ceremonies, for it indicates clearly that primitive education, like most complex modern education, is but the initiation of the individual into the ways of society through the acquisition of its organized cultural possessions, now expanded into many subjects requiring years for its acquisition. The

illustration given — a rare representation of one of these ceremonies — is a photograph of the removal of this prohibition of speech from the youth of a Central Australian tribe after a period of instruction by the shamans. This instruction is of the purely imitative character; for the youth but accept without any variation or any questioning the traditions of their tribe as transmitted by the only teachers they have.

Custom — either in action or in interpretation — has been fixed, once for all, by the shaman or soothsayer, by incantation, divination, consultation of oracle, or whatever method may be accepted; and once determined, the duty of the individual is implicit obedience through imitation.

TRANSITION TO A HIGHER STAGE OF THE EDUCATIONAL PROCESS. — Through a most elaborate inductive inquiry covering most primitive societies (though the same truth may be drawn from observation of modern society), Mr. Spencer has shown that "the least developed people are the most averse to change." The primitive man lives by adjustment to his immediate environment through direct imitation of the acts of his elders or direct obedience to the commands of the shaman or familiar, who, in turn, is guided as far as possible by the same principle. The world of the primitive man is all of the present, for he possesses little or no consciousness either of past or future. His education is mere adjustment to environment. Hence as his environment is non-changing, his education is non-progressive. Having no idea of the future, no constructive imagination, the immediate desires control. To quote Mr. Spencer again, "Pain and pleasure to come, not being vividly conceived, give no adequate spur to action; leaving a light-hearted careless absorption in the present." As his ancestral spirits dwell about him, he has little conception of a future life, differentiated from this life; none certainly that affects his conduct and requires any adjustment to its demands as a part of his education.

Having no records, and little memory save for details, the savage and barbarian can have little conception of the past; as Spencer shows, they can have no recognition of long sequences. Hence, again, in their life and their education there is no conscious attempt to preserve the past, no adjustment of life to an environment determined wholly by the experiences of past generations. Close adherence to custom and tradition there is, but it is the result of unreflective imitation. As has been seen, the only things that concern the primitive man are his immediate daily wants, and the need of placating the forces that interfere with this satisfaction. Consequently his perceptive faculties are highly developed, his reflective faculties hardly at all. Of the immediate, present environment he is conscious; and his education is an adjustment to this, without any attempt to influence or control the remote future or to recapitulate the past. It is only the man of genius, then as now, that suggests a modification of an old way or in those times even becomes conscious of the imitative process. Such men, unreflective as they are, their shamans and familiars, are their only teachers.

From even this slight reflection upon observed experiences come in time means for making permanent records. Through written records are accumulated the materials for the formation of general judgments; from reflection and the attempt to interpret come the means for measurement; from these intellectual instruments of measurement — mathematical, scientific, and the like — come conceptions of uniformity, of cause and effect, of general law. The formulation of these gives to the world the early philosophies, cosmologies, and the germs of all the sciences. Of these latter goods, the primitive man had none at all. But with their emergence, thought begins to possess a definiteness, impossible in the animistic stage, and there develops a correspondence between thought and things. Along with this must grow up a skepticism concerning the old, a criticism of the new, and progress

into newer and better things. Long before this is reached however, the primitive stage has been left.

Along with these changes in the thought life that mark the transition from the primitive stage of culture went others no less fundamental. The patriarchal family adopted a fixed abode; and government or social organization, based upon territorial relationship and possession of land, succeeded that based upon the blood tie of family relationship. Society became political instead of genetic in character. Ancestral worship was replaced by a worship of natural objects or natural forces, or territorial gods. The gods of fire, of water, of the storm, of the harvest, in turn, were superseded by the gods of war, of commerce, of music, of poetry, and of love, and by other such immaterial forces. Man came into fuller consciousness of his past and its worth, of his future and its possibilities. Education, in these stages, was no longer controlled by the present alone; it became, through some control of his development in the present, an attempt to approximate in the individual the worth of the past or to realize in him the possibilities of the future, either of this life or of the life to come. Then the description of education of the primitive man, as non-progressive adjustment to an environment of the immediate present, no longer avails, for higher stages have been attained.

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The only direct discussions of this topic in English are in Professor Davidson's *History of Education*, Chs. I, II, III, and IV; F. C. Spencer's *Education of the Pueblo Child* (an elaborate discussion of the educational custom of a particular primitive tribe); Letourneau's *L'Evolution de l'éducation dans les diverses races humaines* (the most comprehensive work on the subject). Also consult accounts of the initiatory ceremonies of primitive people found in the *Folk Lore Journal*, and in the reports of Ethnology published by the United States Government.

TOPICAL QUESTIONS FOR FURTHER STUDY

1. What advance beyond primitive methods of education is found in the earlier caste systems of Egypt and India?

2. To what extent can a definite conscious educational process be found among the American Indians? (See *Education of a Pueblo Child*, and *Ethnological Studies of the Indians*, published by the United States Government.)

3. To what extent is there a parallel between the function of the Hebrew prophets and priests and those of the shamans and the patriarchal priests of primitive society? (See Robertson Smith, *Religion of the Semites*, etc.)

4. What connection can be discovered, among Egyptians, Chaldeans, and other ancient peoples, between the beginnings of written language and the beginnings of schools and of definite processes of instruction?

5. What relation, if any, is there discoverable between the educational functions of the family in primitive life and in modern life?

6. From the point of view of primitive education, what is the meaning both for the individual and for society, of a school? Of the subjects of study?

CHAPTER II

ORIENTAL EDUCATION. EDUCATION AS RECAPITULATION. THE CHINESE AS A TYPE

CONCEPTION OF EDUCATION HELD BY THE CHINESE. —The fundamental relation of education to the entire scheme of life of the Chinese is revealed in the initial sentence of one of the Confucian texts: "What Heaven has conferred is called nature; an accordance with nature is called the path of duty; the regulation of this path is called instruction." The purpose of education is to train each individual in this path of duty, wherein is most minutely prescribed every detail of life's occupations and relationships. These have not varied for centuries. In reality Heaven has "conferred" merely that which exists — that which was established, or, rather, elaborated, explained, certified to, and made authoritative by Confucius; and by him in turn considered authoritative because it had the sanction of the ancestral approval of many generations. The natural state — that authoritatively approved by religion, morality, and the government — is the existing state of relationships. The "path of duty" is the maintenance of that which exists, without change or modification. Education has for its function the training of the leaders in the knowledge of all this ancient learning respecting the order of society and the proper relationships in life, and the training of the entire population in the proper modes of conduct respecting every activity, every interest throughout life.

No age or place, either in the past or present, has seen a people that was so thoroughly controlled by the minutiæ of cus-

tom, that regarded so sacredly its most punctilious observance, or that has persisted so long in this subserviency to the past. Thoroughly interwoven as they are with every aspect of their life, the educational ideals and practices of this people explain the long continuance of their unchanging social structure, their conservative character, their chief moral traits, their strength and weakness, either as individuals or as a nation. For this reason no other type — in fact, no other instance of an educational system — gives a clearer example of the close relation between education and the social structure and life as a whole; and nowhere else is education more influential or more successful in accomplishing its aim.

Relation between Social Life and Education. — Because of this close relationship that education bears to life, it possesses a distinctly moral character. While, as we are soon to see, the education of the schools is of a distinctly literary character, and it is often cited as an example of a wholly formal and unpractical education, yet the content of this instruction and this literature relates entirely to conduct, and so gives to the individual thus trained both an ability to shape his own conduct aright, and a knowledge that will enable him to direct the conduct of others. Rewarded as are the learned men or educated class of no other country, the successful student of this literature becomes the political official, with complete control of the organization and direction of social life. Such government as they have consists in applying these ancient rules of conduct to present life; their governing class is wholly composed of "scholars in politics"; their aristocracy is truly an aristocracy of learning. The aim of the Chinese system of government is to prevent change, and hence they are often represented as having no government. In a remarkable way that is not true of any Western people, the education, the government, the ethical beliefs and practices of the Chinese all are based upon and all find an expression in a religion — that of Confucianism. Confucianism is

embodied in the sacred texts, *The Four Books* and *The Five Classics*. These are in part the work of Confucius (551–478 B.C.), in part that of his great disciple, Mencius (372–289 B.C.), and in part that of later disciples. However, Confucius in his time assigned the authority of more than twenty centuries to the teachings that have subsequently borne his name.

Confucianism the Basis of Education. — In a remarkable manner Confucianism unites political or social ethics with private morality. Of itself it furnishes rather a system of philosophy than a system of religion or of worship. Its system of conduct receives reënforcement from the other two religions of China — Buddhism and Taoism. All ethical teachings and all social obligations are summed up in those of the "five relationships" that are taught to every child in ten syllables, as an "A B C" of conduct. These are the relation of sovereign and subject, parent and child, husband and wife, brother and brother, friend and friend. As there are five senses, five elements, five planets, five races, five colors, five notes in music, five tastes, five points to the compass, so, too, there are five virtues — benevolence, justice, order, prudence, fidelity.

Strikingly parallel to the teaching of the Greek philosophers, that virtue consists in moderation, in the medium between excess and complete denial, in the mean between two vices, is this teaching of Confucius recognized as his chief principle: Perfect equilibrium of emotions and passions results in virtue, is "the doctrine of the mean" Also strikingly similar to Greek ideas is Mencius's teaching that man is by nature good, not evil, and that ethics and education are to preserve nature and direct him in its ways. "Man," he says, "inclines to virtue, as water does to flow downward, or as the wild beast does to seek the forest."

The teachings of Confucian literature have received full recognition and have been given great praise. It has been

said of the Chinese "that they have the loftiest moral code which the human mind unaided by divine revelation has ever produced, and its crystalline precepts have been the rich inheritance of every successive present from every successive past." Especially has this been claimed for the remarkable principle which Confucius puts into the mouth of the master when the pupil asks, "Is there one good word which may serve as a rule for the practice of all one's life?" "Yes," replies the master, "is not reciprocity such a word? What you do not want done to yourself do not do to others." It is wholly characteristic of their ethics that this should be in negative rather than in positive form. But while fullest recognition should be given to these principles, it must be admitted that they are few and far between. For the most part these sacred writings are devoted to an exposition of details of conduct which are prescribed for every conceivable relationship and occasion in life. To the great bulk of those who follow the teachings of this literature the principle is seldom discovered on account of the precepts.

The following brief passage from the *Li-Ki*, or *Book of Rites*, one of the *Five Classics*, will better illustrate the content and spirit of these sacred books, as it will illustrate at the same time the aim and content of their education. This passage includes the opening paragraphs of the chapter on "The Pattern of the Family," where one would expect to find the virtues of this people set forth; and is typical of the material that is studied in the school.

Selection from Confucian Text. — "1. The sovereign and king orders the chief minister to send down his (lessons of) virtue to the millions of the people.

2. Sons, in serving their parents, on the first crowing of the cock, should all wash their hands, and rinse their mouths, comb their hair, draw over it the covering of silk, fix this with the hairpin, bind the hair at the roots with the fillet, brush the dust from that which is left free, and then put on

their caps, leaving the ends of the strings hanging down. They should then put on their squarely made black jackets, knee covers, and girdles, fixing in the last their tablets. From the left and right of the girdle they should hang their articles for use: on the left side, the duster and handkerchief, the knife and whetstone, the small spike and the metal speculum for getting fire from the sun; on the right the archer's thimble for the thumb and the armlet, the tube for writing instruments, the knife case, the larger spike, and the borer for getting fire from wood. They should put on their leggings and adjust their shoe strings.

3. (Sons') wives should serve their parents-in-law as they served their own. At the first crowing of the cock, they should wash their hands, and rinse their mouths; comb their hair, draw over it the covering of silk, fix this with the hair-pin, and tie the hair at the roots with the fillet. They should then put on the jacket, and over it the sash. On the left side they should hang the duster and handkerchief, the knife and whetstone, the small spike, and the metal speculum to get fire with; and on the right, the needlecase, thread, and floss, all bestowed in the satchel, the great spike, and the borer to get fire with from wood. They will also fasten on their necklaces, and adjust their shoe strings, etc." [1]

This continues for many paragraphs devoted to the conduct of younger son, younger daughter, daughter-in-law, etc., and for many chapters upon every possible activity and relationship of individuals in the family. The virtues of family life are those of filial duty, fraternal love, friendship, and the like; the concrete embodiment of these and other virtues can be judged in the light of the passage quoted.

These texts contain no portrayal of immorality of the gods as in the Greek religious literature, or of those of men as in the Hebrew, nor the extravagances of the mythologies of most peoples; on the other hand, they inculcate the solid virtues of an unchangeable and unprogressive system of society, and of a people destined to a materialistic and, of necessity, sordid view of life. Here are no teachings to inspire the individual

[1] Müller, *Sacred Books of the East*, Vol. 37, p. 449.

no breath of idealism; even the rare principles of ethical character are based wholly on arbitrary authority or irrational tradition.

Sufficient detail concerning the religion, ethics, and sacred literature of this people has been given to indicate the character and purpose of their education. For the individual, education consists in the mastery of this sacred literature in order that he may live in accordance with the path of nature marked out therein. This mastery necessitates a perfect memorizing of these sacred books and a knowledge of the many commentaries upon them. In order that the Confucian statement of the work of education may be made socially complete, the government adds one additional educational aim. The conduct of government is given into the hands of those who show the greatest mastery of the content of these sacred books and an ability to imitate them in thought, in formal construction, and in archaic style. This is accomplished by a system of examinations in essay writing. Of the importance of this ability to write such essays Smith says: "Measured by Chinese standards, the construction of a perfect essay is one of the noblest achievements of which the human mind is capable. The man who knows all that has been preserved of the wisdom of the ancients, and who can at a moment's notice dash off essays of a symmetrical construction, lofty in sentiment, elevated in style, and displaying a wide acquaintance not only with the theme, but also with cognate subjects, such a man is fit not only to stand before kings, but before the very Son of Heaven himself." When these marked individuals, most able because most steeped in the life of the past, with all tendency, ability, and inclination to vary from the traditional form eradicated, are selected to govern their fellow-men and to see that they do not violate "the will of Heaven" and do not wander from "this path of duty" established by Heaven, the social aim of education is accomplished.

The Family, the Basal Institution. — One further point concerning the general nature of their education is to be noted. While instruction is given in a special institution, — the school, — the family in a peculiar way furnishes the basis of their education. The ethics of the Chinese is one of family duties and activities; the five great relationships are all those of the family; the content of their sacred literature relates almost wholly to these relationships. Their religion is an ancestor worship. Filial piety is their greatest and the one encompassing virtue. The family is indeed the unit of social organization, for the son can be punished for the misdeeds of the father. Their jurisprudence and morals consist in these same definitely settled and prescribed rules such as grow out of the family relationships. Thus the family dominates their society, as the institution of animism did that of primitive man.

DURATION, EXTENT, AND MODIFICATION OF THE CHINESE SYSTEM OF EDUCATION. — From the fifteenth century before Rome, and the twenty-second before Christ, the Chinese have existed as a distinct nation, with some degree of social solidarity, and with a culture of a fixed society. In this respect China is typical of Oriental societies in general. Since its educational system has had a history somewhat similar in length, and one that has been the vital factor in the preservation of its character, its educational system also becomes a type of Oriental education. "Before Abraham left Ur of the Chaldees in the west of Asia," says Lewis, "an Emperor of China had established a system of education in the east of Asia, which is still in existence, and which has produced a race whose constant worship is bestowed upon those men, now deified, who taught them the beauty and power of the Chinese language." Though M. Biot, the earliest and probably the most authoritative western investigator of Chinese education, traces the origin of this system

to the twenty-third century B.C., little that is authentic can be discovered before the seventh century B.C. After a period of civil war and disorder Confucius appeared, reëstablished the authority of the sacred literature, elaborated and perpetuated through his own writings these teachings which he at least validates by assigning to them the weight of antiquity, directed his people into that pursuit of peace which has ever since characterized them as a nation; and influenced them to accept, study, and worship the teachings of this literature. Thus the Chinese became "a people of a book," a nation founded on and perpetuated by a scheme of religious and literary education. Mencius became a new interpreter of the literature and added to it by similar elaboration.

While the origin of the present system of education and of examinations dates from about the seventh century B.C., it has been subject, as has Chinese society in every respect, to a multitude of historical changes. Though when compared with Western peoples it is permissible to say that the institutions and customs of the Chinese are unchangeable, yet there has been some development. However, it is no part of our purpose to follow these changes. It is sufficient to note that the present system of examinations, in all its details as a means of filling all governmental offices and with its various degrees, was established about 617 A.D., upon the accession of the great T'ang dynasty. For some centuries a system of colleges was quite as important as the correlative system of examinations, but for the last three centuries the present Manchu dynasty has laid all stress upon the examinations.

The extent of this system is little less marvelous than its duration. It covers a territory almost twice that of the United States; it controls a population quite five times as great. It extends over one tenth of the habitable globe, and includes one fifth of the human race. That a system of education should affect so large a population, should remain in existence for so long a time and should result, as has this

one, in the actual maintenance of this social structure, co-extensive in time and space with the educational system, makes it well worth study by any one seeking knowledge of our own educational forces and a basis of judgment of educational practices.

Since 1895 this system has undergone changes which will tend to modify in a radical manner both the education and the social life of these people. In fact it is universally recognized, both by the Chinese and the Occidentals, that a change in the life, government, social ideals and religion of the Chinese can come only through some modification of their educational system. As our interest is in the system as a type, we have no concern in these current changes save to note the emphasis which they give to the close connection between educational ideals and practices and the life of society at large.

After the Chinese-Japanese War, owing to a variety of influences, chiefly those of contact with Europeans and Americans, the sentiment for the introduction of Western learning began to spread rapidly among the literati and the leading officials. In 1898 the old examination system was abolished by edict of the Emperor and a system of Western colleges substituted. This, however, was too radical a change, and shortly afterward the Emperor was deposed by the royal family. However, after this practical demonstration that the examinations in bow and arrow competitions were insufficient to produce leaders for a modern army, the Empress Dowager, the head of the reactionary movement, began, herself, in 1901 to introduce reforms into the old system. By decree the old orthodox literary style in examinations was abolished and "short essays or articles on modern methods and Western laws, constitutions, and political economy" were substituted. In the hands of men whose sympathies are largely against them, and whose education wholly unfits them for the introduction of the new learning, it is evident that

such reforms can be only partial. Yet, with the prizes for learning, and the extensive system that exists for instruction, or at least for examination, change cannot but be rapid, when, as is the case, the learned classes are becoming more sympathetic with the new ideals.

CONTENT, ORGANIZATION, AND METHOD OF CHINESE EDUCATION. — It is the uniform testimony of all competent observers that in no country is education of a formal, that is literary, character, so highly valued; nowhere has education such a direct and permanent influence in shaping the character of the people; nowhere are the educational activities and processes so uniform. By reason of its education China is a land of absolute uniformity. It is a land of observance of tradition and of custom, a land in which no change from the accepted way of thinking, feeling, or doing is permitted, and in which comparatively little really occurs. Yet that education is most restricted in its content, most formal in its method, and most stereotyped and inflexible in its organization. Let us examine each in turn.

Content. — The purpose of the elementary stages of Chinese education is to familiarize the boy — it goes without saying that the girl has no consideration whatever in their literary or institutional education — with the language and with their sacred literature. Familiarity here means an absolute verbal knowledge of the entire literature and an ability to compose in the stilted formal and archaic style of their writings. The greater part of elementary and of higher education consists in memorizing these forms of language and literature without any necessary knowledge of their real significance. The character of this task can be appreciated by noting the character of both language and literature.

Character of the Language. — The characters of the Chinese language represent ideas, not sounds: it is an ideographic, not a phonetic language. Consequently, it has practically as

many characters as it has ideas. Like the arithmetical digits, these characters have no vocables — they have a meaning primarily for the eye, not the ear. It is almost impossible to estimate accurately the number of these characters composing the language. Most authorities estimate the number, exclusive of obsolete words and synonyms, at about 25,000. Considering those characters that are given a different meaning by a stress mark as totally different, other estimates make the number 260,000. When it is remembered that practically it is to be learned as our alphabet, even the smaller number presents an appalling task for the schoolboy. However, many of these 25,000 characters are seldom used. In fact, the nine sacred books, which form the bulk of their educational material, contain less than 5000 different characters. Again, it is to be remembered that there are six distinct types of handwriting — similar to the script, Roman, italic, black-letter, etc., of English. These are the ornamental, the official, the literary or pattern style, the common hand, the running hand, the angular style similar to printing. Of these forms several must often be acquired. But more important than this so far as concerns the schoolboy, it is to be remembered that this language of the school is practically a dead language and hence has little or no connection with that which he uses in his everyday life. Verbs have no tense, voice, or mood; nouns have no gender, number, or case. Since the meaning and use of a word is determined altogether by collocation, — by its relationship as shown by position or by stress of voice, — the very simplicity of the grammatical structure adds to his difficulty. The use, then, of a literary style — that approved by scholarly standards — is only acquired after years of practice of a most rigidly imitative character.

The Literature itself presents scarcely less difficulty than the language. In addition to being in a "dead language" — at least not in the spoken one — it carries no meaning to the student for many years. "It is," says Martin, "as if our

schoolboys studied Latin alone, and were compelled to commit to memory the leading Latin classics, so that they could be repeated without a single error, and yet with no knowledge of what the words, much less the literature, meant."

Stages of Schooling. — The first period of instruction, that in the elementary schools, is devoted to the memorizing of the forms of an infinitude of diversely formed characters through the mastery of a few universally adopted texts, and the memorizing of the nine canonical books. The second stage is devoted to translation. As the first stage had been mere memorizing of form of these texts and lessons in composition, the second is an actual reading. The third stage is devoted to the composition of essays until the art is sufficiently acquired to enable one to pass the examinations. This training in composition writing entails a more intensive study of form and content of their literature. The two latter stages constitute their higher education.

The Content of their Elementary Education. — When one considers that these schools are all voluntary, and that the widest diversity in territorial environment and some considerable variety of racial elements is included, this content possesses a remarkable uniformity.

The book used everywhere for beginners is the *Trimetrical Classic*, so called from the arrangement of the characters. Judging from the content of this remarkable "primer," one might imagine that this large section of the human race was very superior to the rest in intelligence; but when one remembers that the sole purpose in using it is to give command of characters, of which the book contains more than five hundred different ones, all superiority, save of a mechanical and memorizing kind, disappears. In truth, the opening sentence of this primer states a philosophical and religious doctrine that has been the subject of perennial debate among the learned of most peoples. These opening lines are thus translated by Williams: —

"Men at their birth are by nature radically good:
Though alike in this, in practice they widely diverge.
If not educated, the natural character grows worse:
A course of education is made valuable by close attention.
Of old, Mencius's mother selected a residence,
And when her son did not learn, cut out the (half-wove) web.
To nurture and not educate is a father's error:
To educate without rigor shows a teacher's indolence.
That boys should not learn is an unjust thing:
For if they do not learn in youth, what will they do when old?
As gems unwrought serve no useful end,
So men untaught will never know what right conduct is."

A second of their primers is the *Century of Surnames*, containing about four hundred different family or clan names. Though the mastery of this is quite similar to learning the genealogical tables of the Bible, the book has some practical value. This is followed by the most remarkable of all these texts, — *The Millenary Classic*. This consists of just one thousand characters no two of which are alike in form or meaning, but arranged to secure both rhyme and rhythm. Naturally the content is of the most discursive character. These three texts are followed by the *Odes for Children*, *Canons of Filial Duty*, and the *Juvenile Instructor*, all emphasizing in tale or precept the fundamental ethical ideas, or rather observances, of the Chinese. As most children in the schools never get beyond this stage, they have, in a way, a remarkable influence. In many respects the principles of morality inculcated are worthy and noble, in many merely trivial and formal. Yet few of the Chinese, after all, obtain their ethical ideas or moral code from these texts, so formal is the character of school work. Dr. W. A. P. Martin, whose labors of a half-century in the education of the Chinese, much of the time in connection with the Imperial University, make him a most competent critic, says: —

"Nothing could be more dreary than the labors of the first stage. The pupil comes to school, as one of his books tells

him, 'a rough gem that requires grinding'; but the process is slow and painful. His books are in a dead language, for in every part of the Empire the style of literary composition is so far removed from that of the vernacular speech that books, when read aloud, are unintelligible even to the ear of the educated, and the sounds of their characters convey absolutely no meaning to the mind of a beginner. Nor, as a general thing, is any effort made to give them life by imparting glimpses of their signification. The whole of this first stage is a dead lift of memory, unalleviated by the exercise of any other faculty."

This comment also applies to the work in the next stage of school life, the memorizing of *The Four Books* and *The Five Classics*. This work takes four to five additional years and completes the tasks of the ordinary village or town schools. Of this entire schooling Martin adds: "During all this time the mind has not been enriched by a single idea. To get the words at the tongue's end and characters at the pencil's point, is the sole object of this initial discipline."

The nine sacred books are in bulk about equal to the Old and New Testaments. Hence, to have completed the work of the village or elementary schools, possibly by the age of fifteen, probably much later, the youth has accomplished a prodigious feat of memory, but he has acquired little else.

The Art of Writing, it is true, he has also gained. This, however, is of quite as arbitrary a character and bears as little relation to daily life as does his literary training. Stranger yet is the fact that until he reaches the period of composition writing, the art of writing may have little relation to the work he is doing in reading. Smith gives the following summary of this phase of school work: —

"The task of learning to write Chinese characters is a very serious one, in comparison with which it is scarcely unfair to characterize the mastery of the art of writing any European language, as a mere pastime. The correct notation of characters is, moreover, not less important than the correct recog-

nition of them, for success in some of the examinations is made to depend as much upon caligraphy as upon style. The characters which the teacher selects for the writing exercises of his pupils have no relation, strange as it may seem, to anything which he is studying. These characters may at first be taken from little books of rhymes arranged for the purpose, containing characters at once simple and common. The next step is to change to books containing selections from the T'ang Dynasty poets, an appreciation of which involves acquaintance with tones and rhyme of which the pupil, as yet, knows nothing. The characters which he now learns to write he has very likely never seen before, and they do not at all assist his other studies. The only item of which notice is taken, is whether the characters are well or ill formed. Review there is none. The reason for choosing T'ang Dynasty poetry for writing lessons, instead of characters or sentences which are a part of the current lesson, is that it is customary to use the poetry, and is *not* customary to use anything else, and that to do so would expose himself to ridicule."

From the character of Chinese life, with its multitude of necessary daily transactions, the use of *cash* of almost infinitesimal value, the amount of time spent in counting it and the extremely practical and materialistic nature of their daily occupations, it would seem that a knowledge of arithmetic would be one of the subjects given most prominence in the schools. But it does not appear at all. "To add, subtract, multiply, to know what to do with decimal fractions, these are daily necessities of every one in China, and yet these are things which no one teaches." Such knowledge is simply "picked up" in daily experience, or from those in business; by those who become experts in special lines as accountants, surveyors of land, etc., it is to be learned only from some specialist and brought to perfection by the long practice such as only this patient race can give.

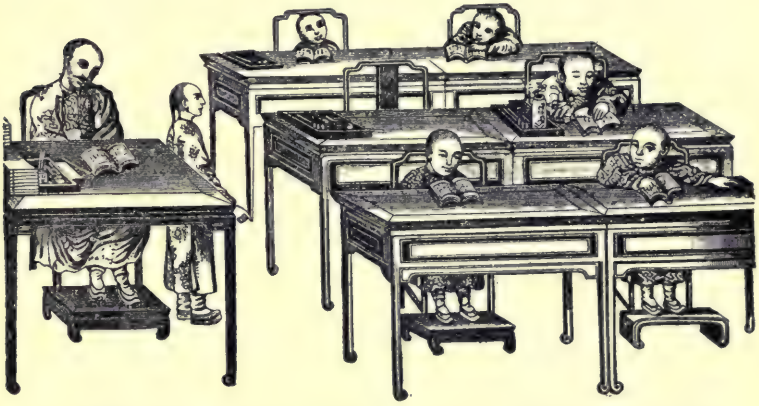
Higher Education with the Chinese occupies an indefinite period terminated only by the passing of the governmental

examinations and the securing of a degree. Since their higher education consists wholly in a preparation in essay writing for these examinations, the content of their schooling for this higher period can best be understood in connection with a description of the system of examinations. It is sufficient to note here that the sacred books having been memorized, it is necessary to acquire some knowledge of their content. This is done through a reading, practically a translating, of these books, and more especially through a study of the very numerous commentaries upon them. Years may be spent upon developing the ability to write essays modeled in formal style and in thought content after the sacred books. This training is quite analogous to the prolonged drill in Latin prose and verse composition that prevailed so long in the English public schools (see Chapter IX) and to a more limited extent in the early American college, with this difference, that the literature used by the Chinese is the sacred literature of their fundamental religion and it is studied in the vernacular though it is not the colloquial tongue.

The School System. — The institutional organization of Chinese education is twofold: there is, first, a system of schools, almost entirely of a private character and devoted to the mastery of the language and sacred literature and to the development of this power of essay writing; and, second, a system of examinations, conducted by the state and serving as the controlling part of their educational system.

Elementary schools, wherein is mastered the curriculum as previously described, are found in practically every village, are supported by private tuition, are patronized voluntarily, and are taught by unsuccessful candidates for the degrees, or by those less fortunate recipients of the lower degrees, who have found no office awaiting them. Schoolhouses there are none to speak of; school is kept in any vacant room of a private house, of a temple or public building, most often the ancestral or Confucian temple, or it may be in a

shed, or any covered nook or corner. School days are long and continue practically throughout the year. The schoolboy, as also the schoolmaster, is sharply separated off from those of his own years and relationship. He must devote all of his time to learning, and is disgraced by any labor or even amusements such as fall to the lot of common mortals. Indeed, the task to be accomplished is so tremendous that it takes all the time of even the brightest pupil. Though the expense is very moderate, only a small number of children attend these schools, for such schooling has absolutely no use



A Chinese School, from a Native Drawing. Boy backing his Book.

in life except as preparation for the examinations and thus for the life of the scholar and the public official. As but one in twenty of the children who do attend school ever get beyond this elementary grade, and as a much smaller proportion ever reach the coveted degree with office attached, it is, from one point of view, the most wasteful system imaginable. For while it accomplishes the general social results desired, the effects upon the ninety-nine hundredths that fail is absolutely valueless; and furthermore, this education unfits them for participation in any ordinary occupation in life, except with loss of prestige. Thus most of them must turn to teaching,

and, in a population where the struggle for existence is abnormally severe, the profession that is held in highest honor becomes one of the worst remunerated and the most burdensome.

Beyond the elementary schools there exist in the larger cities numerous or at least occasional higher schools where, through study of commentary and practice in essay writing, students are prepared for the examinations. Though frequently there are institutions resembling our academies and colleges, endowed or partly supported by private gifts of the wealthy or of the office-holding class, such schools are usually private enterprises. In addition to these of a quasi-public character, in a few instances such schools are supported by the government, or by the liberality of some official. Since the source of the fund is the same, this amounts to the same thing.

The Examination System has been frequently mentioned as the central feature of their education. Since these examinations not only represent the dominant force in their education, but furnish the means through which the entire governmental and social structure is maintained, they, in connection with the Confucian religion which they inculcate, are undoubtedly the most important institution and the most influential force in Chinese society. In truth, they are the means by which Confucianism and traditionalism, through their absolute control of the educated class and thus of the government, have continued to dominate so absolutely this large population and immense territory.

In all its features, the school work is directed, not toward any needs of society, or even needs of government or of official service, but toward the passing of these examinations. The rewards of the successful candidates will explain how such a scheme can exert so great an influence on education, and its connection with government explains how it can dominate the life of society.

From the successful candidates for the final degree, that of "entered scholar," or "fit for office," are selected all important public officials, educational and civil, from the imperial cabinet down to such minor local offices as are of such trivial importance that they go to those who have passed only the preliminary examination. He who obtains the preliminary degrees, of "flowering talent" and of "promoted man" is not without rewards. His are honor, applause, and badges of distinction in dress in a society given to the adoration of form and outward embellishment. His is the seat of honor. To him is shown hospitality at all feasts and social occasions from weddings to burials and to such an extent that a considerable portion of his subsistence is thus gained. In a society where every form of approach and every action in life are regulated by custom, the reverence and the financial support of his kinsmen are his due. In a country where economic rewards and even the bare necessities of life are gained usually by incessant toil, a life of comparative ease and honor, with no manual or commercial labor, are his reward. There always remains the possibility of promotion, through fair influences or foul, to some official dignity with at least the opportunity, if not the legal assurance, of greater rewards.

Not considering the preliminary examinations on the elementary course that are often held, these higher examinations of three grades, are wholly under the control of government officials, composed, or theoretically so at least, of the pick of all Chinese scholars as previously selected through examinations of the same sort.

Ordinarily the first examinations are held once in three years in each district city by the literary chancellor having jurisdiction over an entire province. The first day's examination consists of three essays, two on themes taken from the *Four Books* and one of a poetical type taken from the *Book of Odes*. These examinations, held in the exami-

nation halls or cells such as constitute the "universities" of this country, continue from eighteen to twenty-four hours of most exhausting mental labor. As out of the six or seven hundred candidates, or even, in some districts, two thousand candidates, only a limited number, usually about one in twenty, are allowed to receive the degree, this test



EXAMINATION CELLS, IMPERIAL UNIVERSITY, PEKIN.

must often be repeated four or five times, until the requisite number are secured by elimination.

Some months later these, now termed the "flower of talent," repair to the provincial capital to be examined for the second degree, also held every three years. Now contestants often number ten thousand, of whom only about one in every hundred can obtain the coveted honor. This test, correspondingly more severe, but of the same character, ordinarily occupies three days and must be repeated three or four times. The examination compositions in prose and verse

cover a wide scope and test the extent of reading, the depth of scholarship, and the skill in composition of the candidates. Again, the rewards of the successful examinee, the "promoted scholar," are largely of an immaterial character. "He adorns his cap with a gilded button of a higher grade, erects a pair of lofty flagstaves before the gate of his family residence, and places a tablet over his door to inform those who pass by that this is the abode of a literary prize man." But above all, he can now compete in the examination at the imperial capital, or in a special examination held by the chancellor, the passing of which admits him as an "entered scholar" into the ranks of the favored few from whom all higher officials are selected. The proportion passing this examination, now thirteen days in length, is much greater than that in previous tests, and the successful candidate may soon hope to become a mandarin and live and travel at the expense of the state. There are no age limits set for these examinations at all; they are simply tests of knowledge possessed and of a certain imitative skill acquired. As persons often continue to try for these prizes throughout a lifetime, cases have been known of father, son, and grandson attempting the same examination. As might readily be supposed, for many the strain is such that deaths from physical exhaustion are not uncommon. Even yet this wonderful system of the selection of the fittest by elimination through examination has not done its perfect work. There is yet a higher examination, to which only the doctors or "entered scholars" are admitted to competition, and from which but a few, a score in all, are selected. Carrying with it no degree, but an office which ranks one above all governmental magistracies and practically constitutes one a member of an imperial cabinet, this honor is the most highly prized of all. The persons selected by this examination constitute the *Han Lin Yuan*, the *Forest of Pencils*, or the Imperial Academy. As an educational institution this academy pos-

sesses only advisory and ceremonial functions, but its members are elsewhere given important governmental positions.

From the highest rank of students the emperor on rare occasions may select one as the consummate flower of literary perfection out of four hundred millions of people and confer upon him great ceremonial distinction. Formal educational systematization could go no further.

The following summary of examination statistics for a recent year is given by Lewis. There are 1705 matriculation centers where the preliminary tests are held; 252 centers for the examination for first degree; 18 for that of the second degree, one, at least, containing 30,000 cells; and one for the third degree. But 28,923 bachelors' degrees could be given to the 760,000 competitors; for the somewhat rarer master's degree, or promoted man examination, but 1586 competitors were selected out of a total of 190,300. Not to mention the million or more that were preparing for the preliminary examinations, there were (1903) 960,000 men preparing for these examinations, of whom all but 1839 were destined for failure.

Though these examination essays in their themes and in their content often contain high moral sentiment, the test is for the most part one of form. The following examples, among others, of themes for essays, are given by Williams: —

"To possess ability, and yet ask of those who do not; to know much and yet inquire of those who know little; to possess, and yet appear not to possess; to be full, and yet to appear empty." "He took hold of things by the two extremes, and in his treatment of the people maintained the golden medium." "A man from his youth studies eight principles, and when he arrives at manhood he wishes to reduce them to practice." "He who is sincere will be intelligent, and the intelligent man will be faithful." A theme for versification was, "The sound of the oar, and the green of the hill and the water."

The character of these theme expositions, the chief excellency of all learning, will be yet further seen in the consideration of method.

The Method of Chinese Education is that of direct and exact imitation. In the lower stages it is purely a training of the memory. "The object of the teacher is to compel his pupils, first, to Remember, secondly, to Remember, thirdly, and ever more, to Remember." The school of the Chinese is a "loud school"; each child takes the appropriate text, and shouts aloud the passage until it is impressed upon his memory. When the assigned task is complete, he recites, or "backs his book" — by handing the book to the teacher, turning his back, and reciting the passage in high key and rapid speed, without any knowledge, necessarily at least, of its meaning. Again, "the attention of the scholar," to quote from Smith, "is fixed exclusively upon two things, — the repetition of the characters in the same order as they occur in the book and the repetition of them at the highest attainable rate of speed."

Owing to their number, their peculiar form, and the very slight distinction between them, the method of writing or forming characters is necessarily a matter of most accurate imitation. Hence this knowledge is acquired altogether through the use of tracing paper. With time the characters are made smaller, as their use of the brush — their substitute for a pen — becomes more expert, and finally characters may be reproduced altogether from memory of form.

It would seem that the writing of essays as the great outcome of this system of education possessed peculiar merit, in that it is a test of ability or power rather than a test of knowledge. But this merit is in appearance only; for the ability is again wholly one of imitation. The one who can imitate the construction, the metrical form in poetry, the balanced structure in prose, of their sacred literature is the successful theme writer. It is as though our whole

aim in school was to develop the ability to write essays similar in form and structure, and approximating in sentiment, the *Proverbs* or *Psalms*. While the ability to imitate the form might without doubt be readily developed in the average boy, the degree to which corresponding ideas of an original character could be called forth can be readily imagined. Or again, the success of the average schoolboy of a few generations ago in rivaling Homer or Virgil may be taken as a similar criterion. In reality the aim of the entire training is not to develop originality, but to suppress it; not to develop creative power, but power of imitation; not to produce literary ability, but the ability of the clever versifier and parodist. Martin describes the method of this training as follows: —

"The first step in composition is the yoking together of double characters. The second is the reduplication of these binary compounds and the construction of parallels — an idea which runs so completely through the whole of Chinese literature that the mind of the student requires to be imbued with it at the very outset. This is the way he begins: The teacher writes 'Wind blows,' the pupil adds 'Rain falls;' the teacher writes 'Rivers are long,' the pupil adds 'Seas are deep,' or 'Mountains are high,' etc. From the simple subject and predicate, which in their rude grammar they describe as 'dead' and 'living' characters, the teacher conducts his pupil to more complex forms, in which qualifying words and phrases are introduced. He gives as a model some such phrase as 'The emperor's grace is vast as heaven and earth,' and the lad matches it by 'The sovereign's favor is profound as lake and sea.' These couplets often contain two propositions in each member, accompanied by all the usual modifying terms; and so exact is the symmetry required by the rules of the art that not only must noun, verb, adjective, and particle respond to each other with scrupulous exactness, but the very tones of the characters are adjusted to each other with the precision of music. Begun with the first strokes of his untaught pencil, the student, whatever his proficiency, never gets beyond the construction of paral-

lels. When he becomes a member of the Institute or a minister of the Imperial Cabinet, at classic festivals and social entertainments, the composition of impromptu couplets, formed on the old model, constitutes a favorite pastime."

RESULTS OF THE CHINESE SYSTEM OF EDUCATION. — The statement of the aims of Chinese education previously made is a partial statement of its results. For it may be affirmed that in a fuller sense than in any other system we will have to consider, the desired results are obtained. That for many centuries a nation has sought to maintain itself and accomplish its ends by education, and that the system of education elaborated was and is adequate to accomplish consciously formulated objects, is a significant fact. With Occidental nations, such a conception of education — one having social as well as individual functions — is of comparatively recent development. Yet this is possible because its object is negative. Not to develop the individual, but to suppress individuality, not to secure social progress, but social stability, is its aim. This negative or static character of the goal explains its comparative success. A stationary target is more readily hit than a moving one. On the other hand, in its social outcome and its influence on individual character, modern education works toward an ever changing, ever advancing goal. It does not seek to fit an individual into a predetermined environment, but to develop in him the ability to determine in large measure his own environment.

The most important result to notice is that Chinese education accomplishes its great purpose, in that it secures the stability of society, the perpetuity of the empire, the conservation of the past. "It is the consensus of opinion that Confucius did not teach morals for the sake of the individual, but to secure the peace and stability of the empire," says Lewis. Of the two great social forces, the one working for progress through development of the individual, the other working for order

and stability through the subjection of the individual to custom, the latter alone receives emphasis with the Chinese. The long duration of the empire, and the perfection and stability of the educational system which have been noticed, are sufficient evidences of the truth that here can be merely stated.

In a second result, is found one of the important accompanying conditions of this general status. The education appropriate to this great task has for the mind of students certain peculiar psychological merits, and other pronounced defects. While there results a very thorough training of the mind along narrow lines, the results upon the individual, though marked, are restricted. The mind is not symmetrically trained; for while its retentive powers are tremendously strengthened, while there are developed the power of application to the mastery of details, the ability to recognize fine distinction of form, and the ability to imitate, there is a lack of power of initiative, of inventiveness, of adaptability, and of all creative functioning. The patience of this race, the exactness, both in scholarship and in details of common life, the power of voluntary attention, are thus results of their education. Of a certain kind of information there is wide appreciation, but most great branches of knowledge are disparaged. "Every department of letters," says Williams, speaking of the classics, "save jurisprudence, history, and official statistics, is disesteemed in comparison, and the literary graduate of fourscore will be found deficient in most branches of general learning, ignorant of hundreds of common things and events in his national history which the merest schoolboy in the Western world would be ashamed not to know in his."

While there is so much to disparage in the Chinese system of education, yet frequently there has been suggested by those familiar with it, a similarity to the schooling of the linguistic education that prevailed so extensively a few generations ago (see Chapter IX). In the fact that both are wholly literary,

that both are devoted largely to the mastery of the form of the language and literature, that comparatively few get to the point of entering into the spirit of the literature, that with both the literature is in what is practically a dead language, that the school training is largely in formal verse and prose composition, in which form is made most important, since the youth is manifestly unable to rival the thought, and that all other branches of knowledge are undervalued and their recognition in the process of instruction disparaged, in all these points the two present a striking analogy. Both aim at a disciplinary training which comes largely through the mastery of the form of a language; in content neither has direct relation with the immediate needs of society; yet, in regard to the actual processes of society, the Chinese literature bears a much closer relation than does the literature of the Greeks and Romans to the society of the eighteenth or nineteenth century. However, this is not all of the problem; for the content value of the classical literature is so much greater than that of the Chinese that when the general results upon the intellectual life and social development are considered, there is little basis for comparison. However, this further analogy is to be noted; the disciplinary education based upon classical literature (Chapter IX) was, and is yet, favored in an aristocratic form of society where the forces of social stability find greater emphasis than those of social progress.

While, as just noted, the content of their literary education has little direct connection with the practical needs of everyday life, in that it contains no arithmetic, geography, training in the practical arts, or study of the national resources, in a way it does have a most direct relation to their life. This is because their literary education relates to the form of conduct and of government. The great art with them is that of conduct; the scholar is the one versed in the most approved forms, and thus is fitted to become the ruler in society and the director of the conduct of others.

Stated on the individual side, the same general result means the suppression of individuality. This becomes a most prominent conscious aim, and is carried out in the most minute detail. In his examinations, "his quotations in support of his argument must not contain a flaw in penmanship, nor an error in recollecting a passage, and if he deviates from the orthodoxy of the great commentator he is doomed to failure" (Lewis, p. 128). In their versification the very positions of the ideographs are fixed; in some essays even the number of spaces is marked by cross-ruling of the paper, and any deviation from the established form for the sake of clearness of thought, results in "death to success." Thus imitation from being a virtue, soon becomes a necessity, and the man best educated and most marked for success is the man who possesses the least originality and can reproduce most accurately the ancient modes of thought and action.

The aim of education being to reduce all life to conformity with the past, the aim of instruction being to impart an accurate and detailed knowledge of these forms to those who are to control society, it is the formal, the external, the prescribed, that comes to dominate in their lives. The fact that their sacred literature contains little of principle, but a tremendous multitude of prescriptions, has been previously noted; life, bound down by external observances of these forms, gives little or no room for free moral sentiment, for individual opinion. As was indicated in the selection given (p. 21), the externality of their moral virtues is readily seen even in the character of the highest of them — those relating to the family. "All this do with the appearance of pleasure," is sententiously added. Acts have only an outer, not an inner meaning. Blameless and intentional acts are judged by the same standards. In this is found the chief occasion of disputes with foreigners. The moral quality of an act does not lie in its intent, but in its actual form, just as virtue consists not in the spirit or the principle, but in objective

manifestation. Thus it happens that the standards of conduct, especially of personal morality, are extremely low, despite the fact that the teachings of their moral leaders are comparatively high. Through the absence of the principle of freedom, and the dominant idea of formal observance, all sense of shame and of dignity and of personal responsibility tends to be absent.

Education, then, does not seek to develop human capacity or ability, but to store the memory with acknowledged forms; where conduct is directed by precept rather than by principle the necessity for the development of ability to interpret rule is replaced by necessity for developing power of memory to retain a multitude of facts. The following summary of the results upon the individual is given by Lewis.

"He can compose elegant Chinese prose, according to the fixed laws of composition. He commands from memory the bulk of the thirteen classics, which means that his conversation and writing are punctuated with classical allusions. It is probable that he has the ability to compose epigrams, and epigrammatic couplets and quatrains. He is saturated with the family law and a knowledge of the five relations — the fundamentals of sociology. He believes that the ruler has divine right and the scholar has divine opportunities. He doubts not that China is the Central Nation of the world, not only geographically but intellectually. Foreign nations are to him barbarous, and rightfully should seek culture from Heaven's Country. Their brutal militarism explains their dominance. He knows the life story of China's rulers, sages, scholars, statesmen, and poets. He thinks he knows the principles of Cosmos, and the rules for unlocking its laws. He has at his disposal remarkable but rude astronomical calculations. He has been taught to disdain foreigners with their 'strange doctrines' and their disregard for 'propriety.' He is well-bred according to standards which are older than European history, and he hesitates to recognize as a gentleman a man who does not conform. If your manners are not his, then yours are not good manners. The Chinese literatus fastens his black eyes upon you, reads your char

acter, sifts your motives, and thinks he makes an altogether keener analysis of you, than you do of him. He knows no rules of psychology, but without them may make a better psychological diagnosis than you do."[1]

CHINESE EDUCATION AS A TYPE OF ORIENTAL EDUCATION.— The purpose of this somewhat prolonged consideration of Chinese education, is not to gain a knowledge of Chinese education alone, but to obtain a knowledge of Oriental education in general. Of this the education of the Chinese forms an excellent type. Many others of these systems, of quite as great intrinsic and historic importance, are not considered at all. In many, if not most details, other systems of Oriental education present diversities; but in purpose and spirit, and in general principles underlying the conception of education, all are in fundamental agreement.

Oriental education represents a stage in transition between that of primitive man and that of Occidental peoples. In primitive society, education has not passed beyond the family and the rudimentary priesthood: in Oriental society, written languages are developed, literature becomes the basis of their higher or theoretic education, and there is developed a system of schools either independent of the priesthood, as with the Chinese, or in connection with it. In a peculiar way, China presents a case of arrested development; while its educational process has largely passed without the circle of the family, the family yet remains the basis of social structure. Their morality is little above that of family morality; at least, its principles of family morality and family relations are simply projected on a larger scale so as to include all society. The environment of the Oriental is no longer the simple unorganized one of the primitive man, living yet in a genetic social order. There are now the complex social relations of the family, the state, the religious organizing of industry, of

[1] Lewis, *The Educational Conquest of the Far East*, pp. 153–4.

commerce, of military activities, and a great variety of others. As a transitional stage, the great difficulty and importance of the mastery of the language is the most marked feature. Education becomes little less than the mastery of the language and of a very restricted type of religious historical literature.

One other important aspect of this transitional phase is seen in the attitude toward the individual. Primitive ethics and education were unconscious of the rights of personality and of the importance of the individual. In both the ethics and the education of the Oriental, the individual has risen into consciousness; but just as consciously society seeks through religion and through education to repress the individual. In theory individuality is hostile to social welfare. In their highest thought, as in the religion of the Hindu, the goal of personal development is absorption in *Nirvana* and thus the annihilation of the individual. Only with the Greek, or at best with the Hebrew in its later development, is there some thought of possible individual development not in antagonism to social order and social good.

Thus there follows a further characteristic of Oriental education in which China is typical: life in its purpose and character, and education in its aim and processes are controlled by some form of external despotic authority. The individual has a place in society, fixed by some authority outside of himself, to which he is predetermined. Education is simply the process of fitting him into this place. This formal authority takes various shapes, allowing now some little freedom, again none at all. With the Chinese, the social class lines are not wholly predetermined; hence there is some shifting in class organization, and therein their educational system possesses a merit above that of several other Oriental types. The external authority here is that of tradition exerted through the family. The dominance of the family, expressed in Confucianism and worked out through every

detail of social procedure, binds the individual to the authority of the past. In India this external authority resides in the caste system; in ancient Persia it resided in the state; in ancient Egypt, in a politico-religious priesthood. In none is there any room, save by chance, for the development of personality. Where there is opportunity given for the development of ability, as with the Chinese, all development of individuality is guarded against, and free expression of personality finds no opportunity.

The result of this dominance of external authority in their life and the development of an appropriate educational scheme to carry it out is twofold; society becomes stable but remains stationary. Both materially and spiritually civilization is non-progressive. Thus it happens that in such societies education most readily accomplishes its purpose. It is true that this stability only relates to internal forces; but when a people is isolated, like the Chinese, such an education is effective for a long period. Neither individually nor socially, however, does this stability give power of adjustment to new conditions.

On the side of the inner or subjective life, it is the external and prescriptive that again controls. All that belongs to the free spirit is wanting, and in this the Chinese education is again typical. The art, science, religion, education, of a Western people is wanting, or *tends* to be wanting. Art becomes external decoration; literature an effusive formulation wherein merit is in style not thought; science becomes occultism, and discoveries are the result of accident; religion becomes a mere formal worship, in which there is little room for free personality; morals are governed by utilitarianism; education has no room for "self-activity." If to these characterizations there are marked exceptions, such exceptions at least indicate the all-pervading *tendency*.

Thus it results that among most of those Oriental peoples there is to be found an educational system of merit, often of

long standing and of most successful operation. Such systems show an accurate correlation between purposes and results; but while they must be ranked high from such a basis of judgment, comparison with more modern systems must be instituted upon the basis of purpose.

The rapidity with which the Japanese have modified their ancient social structure and assimilated the culture of Western civilization, chiefly by means of the adoption and possible improvement of the ideas and methods of Western education, indicates the extent to which the characteristics of Oriental society are due to the established education rather than to inherent racial traits.

Such a system of education aims simply to *recapitulate* the past, to sum up in the individual the life of the past, in order that he may not vary from it or advance beyond it. It aims to form habits of thought and action identical with those of the past without developing any ability to modify or adjust habit to new conditions. So far as instruction is added to training, it is without any rational basis. It is not instruction in the sense that it seeks to interpret to the individual the meaning of a social custom. At every point education consists in indicating to the individual what to do, to feel, or to think; the exact way in which the act is to be performed, or the emotional reaction expressed; and finally constant repetition until the habit is unalterably fixed. This is education as *Recapitulation.*

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TOPICAL QUESTIONS FOR FURTHER STUDY

1. What further elaboration of the conception and aim of education can you discover in a study of the Chinese sacred literature?
2. What educational value has the essay writing of the Chinese?
3. What similarity between this system of essay writing and the prose and verse exercises of the old classical education?
4. What inferences can be drawn from Chinese education concerning the value and results of memory training in education?
5. What connection can be found between education and social welfare?
6. Compare any one of the other types of Oriental education with the Chinese in respect to purpose, organization, curriculum, method, results, or relation to society.
7. Compare the relationship that exists between education and religion of the Chinese with the same relationship among any other Oriental people.
8. Make a similar comparison in regard to the relation between education and the family.

POLITICAL EVENTS	POETS, DRAMATISTS, ORATORS, ETC.	PHILOSOPHERS, SOPHISTS	WRITINGS POSSESSING DIRECT EDUCATIONAL SIGNIFICANCE	EDUCATIONAL EVENTS
First Olympiad 776 Dominance of Sparta . 750–600 Messenian Wars . 743–668 Laws of Draco 629 Laws of Solon 594 The Pisistratids . . 560–510 Laws of Clisthenes . 509 Persian Wars . 500–479 Athenian supremacy 479–431 Confederacy of Delos 477–450 B.C.	Homer flourished *c.* 900 or 850 Hesiod . . *c.* 700 Terpander . *c.* 676 Sappho . . *c.* 612 Thespis . . *c.* 536 Simonides 556–468 Pindar *c.* 522–*c.* 443 Æschylus 525–456	Thales . *c.* 624–548 Anaximander *c.* 611–547 Anaximenes *c.* 588–524 Pythagoras *c.* 580–500 Heraclitus *c.* 525–475 Anaxagoras *c.* 500–428 Zeno, the Eleatic fl. *c.* 460–440	*Iliad* . . . *c.* 850 Laws of Lycurgus *c.* 850 or 800	Parental duty in education in Solon's Laws . 594 Origin of the drama *c.* 556
Age of Pericles 459–431 Peloponnesian War. . 431–404 Sicilian expedition . . 415–413 Spartan supremacy 404–371 Retreat of the Ten Thousand . 399 Theban supremacy 371–362 Philip of Macedon . . 359–336 The Sacred Wars . 346–338 338 B.C. Battle of Chaeronea	Sophocles 495–405 Euripides 480–406 Phidias . 488–432 Herodotus *c.* 484–*c.* 425 Thucydides 471–400 Aristophanes 450–385 (Old comedy) Xenophon 434–359 Menander 344–292 (New comedy) Demosthenes 384–322	Gorgias . *c.* 485–380 Protagoras *c* 480–411 Prodicus . fl. *c.* 435 Socrates . 469–399 Antisthenes 422–371 Plato . . 420–348 Isocrates . 436–338 Aristotle . 384–322	Thucydides' *Pericles' Oration* 431 Aristophanes' *Clouds* . 423 Plato's *Protagoras* Plato's *Republic* *c.* 395 Plato's *Laws c.* 350 Xenophon's *Economics c.* 380 Xenophon's *Memorabilia* . *c.* 380 Xenophon's *Cyropedeia* . *c.* 380 Isocrates' *Against the Sophists* 390 Isocrates' *Exchange of Estates* . 354	Protagoras teaches at Athens . 445 Trial of Socrates 399 Isocrates establishes a school at Athens . 392 Founding of the Academy 386 Founding of the Lyceum 335
Macedonian supremacy 338 Alexander the Great . 336–323 Battle of Issus 333 Alexandria founded . 330 Ptolemy I (Soter) 322–285 First invasion of Greece by Gauls . . 279 Ptolemy III (Euergetes) . 247–222 Agis (Sparta) *r.* 244–240 Cleomenes (Sparta) *r.* 236–222 Destruction of Corinth—Greece a Roman province . 146 Egypt a Roman province 30 A.D.	Theocritus . *b.* 324 Polybius *c.* 205–*c.* 123 Strabo *c.* 63 B.C.–*c.* 24 A.D.	Epicurus . 341–270 Zeno . . *c.* 350–260 Chrysippus 280–207 Pyrrhon . . *c.* 330	Aristotle's *Politics* *c.* 330	Museum at Alexandria founded 280 Euclid systematizes geometry *c.* 250
	Plutarch *c.* 46–120 A.D. Lucian *c.* 125–*c.* 192 A.D.	Philo of Judea 20 B.C.–40 A.D.	Plutarch's *Training of Children* *c.* 100 A.D. Lucian's *Teacher of Orators, Anacharses*, etc. Gregory of Nazianzus' *Panegyric* 379	Imperial support for the University of Athens A.D. 69–79 University of Athens suppressed A.D. 529

CHAPTER III

GREEK EDUCATION. EDUCATION AS PROGRESSIVE ADJUSTMENT. THE LIBERAL EDUCATION

THE SIGNIFICANCE OF GREEK EDUCATION lies in the fact that here first is found a developing conception and standard of life, consequently a conception of education which enlarges through successive periods and in which change is tolerated and development of the individual provided for. Growth or modification in social standards results from variation by individuals from formulated customs; progress comes where such variations are not only tolerated but seized upon and made permanent if deemed serviceable. For the first time, then, in Greek education, is found a type in which the individual is neither unconsciously nor consciously suppressed. On the contrary, some expression of individuality is thought compatible with, even desirable for, social stability and welfare.

The problem of providing for the individual such a liberty of initiative and of judgment as will produce progress under a régime of social order and such an institutional organization as will secure consideration for the rights of all and hence secure stability, was first worked out by the Greeks. This is the problem of social life or civil society, and hence the task of education. While the Greeks did not solve this completely, certainly not permanently, they first attempted it; and the somewhat qualified success of modern times in solving these same problems may cause us to be somewhat lenient in our judgment of their tendency to emphasize first

the one extreme of absolutism or socialism and then the other of individualism.

Political Development of Personality. — This freedom of the individual was first approached from the political side. The Greek city states were the first self-governing communities; even their kings, as at Sparta, were under the law as much as was the free citizen. Here the individual found his freedom in and through the state. Though it is evident that in the earlier period the claims of the state were somewhat exorbitant and oppressive, there were at least constant attempts to solve the ever dominant political problem of all modern times, — the reconciliation of the interests of the individual with those of the state. As Professor Butcher sums up this service to civilization, "In Greece first the idea of the public good, of the free devotion of the citizen to the state, of government in the interest of the governed, of the rights of the individual, took shape." Education among such a people has, then, the same function as with ourselves, and here one may see not only the first, but one of the most successful, of such attempts.

Moral Development of Personality. — But political freedom, social equality, and opportunity for exercise of individual initiative in social life, do not satisfy all the requirements of free personality, nor were they all that the Greeks contributed. Moral responsibility and moral freedom, as separable from the legal, political, and social obligations, — though less separable one from another among the Greeks than among any other people, — are quite as essential. The Greek mind was preëminently a secular one. The priesthood in Greece was not a dominant body, — was not even a permanent class. Its members were often elected, were sometimes women, and frequently were returned into the citizen class. Its function was largely liturgical and ceremonial, and very slightly theological and pedagogical. It had little to do with the development of philosophy, literature, science, and education, or with

the moral growth of the people. The growth of the abstract formulation of the moral sense with the Greeks came largely with their philosophy; that of the concrete embodiment of moral responsibility through the city state. They sought for law or principle in the realm of conduct as they did in that of nature and of political relationships; and if their ethics and morality found little sanction in a religion, the former reached a high state of perfection in their philosophy and the latter a high degree of effectiveness through their city state. One is in turn amazed at the subservience of the Greek as a free individual to the demands of the state in regard to many phases of conduct and in the devotion of his life's activities in its service; and, on the other hand, astonished at the freedom of expression of opinion and in respect to those phases of conduct that have to do with personal morality.

The difference in point of view between classical and modern civilization is here irreconcilable. One reason for this difference is to be seen in the very great scope of intellectual freedom allowed to the Greek. This is in marked contrast with the timidity and superstition of the Orient as well as with the conservatism of expression in the modern West where religious opinion seeks to control not only conduct but intellectual and emotional life as well. In respect to the second difference, the explanation is to be found in the fact that the scope of authority of the state among the Greeks was almost coterminous with that of conduct, — at least in so far as it affected at all the conduct and welfare of others, — instead of being limited as it is in our Western civilization. Here the controlling *laissez faire* principle limits the authority of the state to that which cannot be settled without great violence by the free play of individual interests. Approximating, then, the scope of religious as well as that of political control, the state of the Greeks offered to them not only the basis for formulating their free personality in its political

expression, but in its expression of much of that which to us would have to do with religion and personal morality. Their task, then, as a people, was essentially that as conceived in modern times; namely, the formulation of principles of conduct into which the volition of the individual entered, and through which he rose to moral freedom by a recognition of his own moral responsibility. Nevertheless it must be recognized, as the greatest weakness of the Greek character, that they could not formulate an adequate sanction for such moral principles. Philosophical insight offered a sufficient basis for the few, — but only a few could approximate the moral grandeur of Socrates and Plato. As the religious sentiment of the multitude was not sufficient, it was from the Hebrews that the modern world had to derive this one great element of free personality, in order to supplement and complete the work of the Greeks.

Intellectual Development of Personality. — It is because of one other trait, however, that the Greeks become of supreme importance in the history of education. By the Greeks first, and in the fullest manner, individuality was worked out on the thought side. The love of knowledge for knowledge's sake found here its first devotees; inquiry into nature, into man, into the natural and the supernatural here first was dared; here the search for the nature of reality began. Here first knowledge ceased to be the handmaiden of theology, and inquiry the special privilege of the priesthood. No longer held in check by that repressive awe for the supernatural as characteristic of the East, the Greek lay mind was possessed of a curiosity, ever penetrating but not irreverent, and an imagination ever free but not inclined either on the one hand to irrational fantasy or on the other to gloomy mysticism. Plato's phrase "Let us follow the argument wherever it leads" is as characteristic of the intellectual bravery of the Greeks as it is foreign to the reverent, even superstitious, quiescence of the East. Hitherto, as later in the Middle Ages

knowledge had been the secret possession of the priesthood and the art of writing the symbol of its authority; to the Greek this was the inheritance of the lay mind, into which he who would might enter. Not only did writing become a possession of the many, but a nation was developed that determined by lot among the city wards the productions of dramas that were to be presented to popular audiences, intelligent and critical enough to hiss a mispronunciation.

With the absence of any sacerdotal class and with intelligent appreciation and inquiry characteristic of the common man, learning for the first time became a possible possession of all. Even more significant, education for the first time fell into the hands of a class especially, or almost wholly, devoted to it. Naturally, at first, the educators are those who have possession of the knowlege of the written word, — the poets. Later the sophists and the philosophers, the wise men and the lovers of wisdom, become the teachers or inspirers of the young and the intellectual leaders of the old.

The application of the intellect to every phase of life was the task of the Greeks; it was they who first strove to live by reason. This was true of the moral sphere as of all others, and partly explains what has been said both of this great achievement in regard to the conception of moral personality and in regard to their deficiencies on the religious side. They first formulated the conception of man as primarily a rational being. As expressed by Socrates when as a people they came into full self-consciousness, the duty imposed upon each individual was "to know himself." In his rational nature each individual found the sanction for determining his own ends in life, and in his moral nature the conception of these ends as shaped by his own being. Through the realization of his own nature each must work out the things that life is to be lived for; science, art, philosophy, even religion, are means to this end and are to be made subservient to it. Conceiving the rational ends in life much more clearly than those

which depend for their realization upon the divine or superhuman, the Greek worked out, as men have ever done, his own conception of Deity, — not a conception of perfection, but one of idealized, rationalized manhood, of mere human perfection. Hence there resulted the fusion of the intellectual and moral determinations of personality, similar to the fusion of the moral and political previously noted.

Æsthetic Development of Personality. — One further aspect of the significance of the Greeks to education in their determination of individuality remains to be mentioned. We have seen that the Greeks failed to reach a satisfactory solution of the relation of developed personality to the demands of social welfare on the religio-ethical side, such as is found in the ideal personal realization of service, love, self-sacrifice, furnished by Christianity. But in respect to the æsthetic development of personality, the Greeks have had no equal. To them first and beyond all others was given the power of expressing a general truth in concrete embodiment. For art is but the embodiment of some truth, ideal, or experience, that has universal validity and has been generalized and then put into a concrete individual form such as can be comprehended by all. It then depends for interpretation rather upon the imagination than the reason; it becomes a matter rather of appreciation than of logical understanding. This power the Greeks developed to the highest degree. In sculpture, painting, music, poetry, they created these various forms of expression which are called the beautiful. Even prose felt this influence; for with the Greeks, as distinguished from the moderns, oratory, history, and other forms of prose were not mere scientific products, but were forms of art under the patronage of the Muses.

We have seen that the primitive man had little power of generalizing; and that the Oriental, if he possessed such power, tended to leave truth in the generalized form, as with the Hindu philosophy, or concrete in moral embodiment, that

is, in mere subjective form, as with the Hebrew. The Greeks, on the other hand, possessed both the power of generalization, as is seen in their science and their philosophy and in the fact that the very conception of *law* or universal principle comes from them, and the power of making the abstract concrete in all their forms of art. The task of the Greek schoolboy was largely to give improvised musical expression as accompaniment to the recitation of the Homeric or other poems. This task called first for the appreciation of one form of art and then for the creation of another in harmony with the first.

Meaning of Greek Education. — To summarize, the significance of Greek education, then, is found in the fact that here first is worked out the conception of free personality realizing itself through social institutions; that here is found the ideal of knowledge for its own sake and as the right of all instead of the privilege of the few. Here one finds the individual constructing his ideals in life and striving for self-realization under moral laws formulated by his own rational processes. Here individuality is defined on the æsthetic side, and possesses the power of appreciating the general truths embodied in concrete form of reality, of which the highest expression is the art of so living as to embody in the concrete the general laws of moral life. With the Greeks, the high ideal of expression of individuality in the realm of reason and the appreciation of the beautiful was never to be separated from life, — from conduct. Hear their greatest statesman, Pericles, sum up the ideals of Athenian citizenship: "We alone regard a man who takes no interest in public affairs, not as a harmless, but as a useless character; and if few of us are originators, we are all sound judges of policy. The great impediment to action is, in our opinion, not discussion, but the want of that knowledge which is gained by discussion preparatory to action. For we have a peculiar power of thinking before we act and of acting too, whereas other men are courageous from igno-

rance and hesitate upon reflection, and they are surely to be esteemed the bravest spirits who, having the clearest sense both of the pains and pleasures of life, do not on that account shrink from danger." Or again, to quote a modern appreciation from Professor Butcher: "Greece first took up the task of equipping man with all that fits him for civil life and promotes his secular well-being; of unfolding and expanding every inborn faculty and energy, bodily and mental; of striving restlessly after the perfection of the whole, and finding in this effort after an unattainable ideal that by which man becomes like to the Gods."

From yet another point of view, the work of the Greeks was to determine the things in this life worth living for. Aristotle says that the aim of life is "living happily and beautifully." And the best expressions of their civilization give us this knowledge, or at least indicate to us their realization of this high ideal. Add to this the one great element since added to civilization through the Christian religion and the ideal now formulated for our life and for our educational process is but slightly more advanced. Of this list — political freedom, intellectual freedom and attainment, moral freedom and life, æsthetic appreciation, and power of accomplishment — we have made but one great change, that of substituting material achievement for the æsthetic expression of personality; and this is a change that is not an unmitigated blessing nor an unqualified advance.

Since the aim of education, as limited in the work of our schools to-day, must eliminate the religious element, it can find no higher purpose than that of determining for each individual the things in this life that are best worth living for. Consequently no phase of educational history other than that of the Greek has more significance for the student or will better repay consideration of the means and methods adopted for securing these ends.

Limitations in Realization. — While it is true that the

Greeks formulated the problems of life and of education and stated their solution much as we would do now, yet we cannot believe that the Greeks worked out in the concrete all that is worth living for, else we should at this point reach the culmination of that evolutionary process, the survey of which we have just begun. If so our education, as with the Oriental, would need but be a recapitulation of the past and an attempt to recover what the Greeks gained. Yet in their ideals elements were missing. In their attempts at realization as yet in our own, there were shortcomings. While we yet fail to realize a portion of that which they realized, time has added some elements to that which they held worth living for, and modern times have broadened immensely the scope of that which they held to be but for the few. In respect to womankind, the Greek view was practically Oriental; in respect to the future life, their idea was but little beyond that of primitive man; in respect to the masses of mankind, even of their own race, they had not moved much beyond the despotic nations of the East, for nine of every ten Greeks were denied these high privileges of the free man. Then, too, in their concrete realization of their ideals there was much that is repellent to modern thought and morality. With their Oriental attitude toward womankind and toward the great masses of slaves and serfs; with the absence of all thought of the gods or of the future life as having to do with either motive for or outcome of conduct in this life, there could not but be very much in their lives foreign to our very conception of morality. Moreover, their versatility borders on the insincere, even the dishonest, while their light-heartedness often becomes frivolity and licentiousness. Their keenness in thought leads in time to a disingenuous discussion of terms and a hair-splitting logical activity as a substitute for a higher intellectual life; while this keen appreciation of the excellence of forms leads to mere talkativeness and rhetorical show Even their control

of life by reason became in common practice both in Homeric and in later periods a control largely in the sense of prudence. There is often an entire absence of the sense of honor, of honesty, and of loyalty. The sense of compassion was hardly developed, as indeed it could not be when slavery prevailed to such a degree, when women held the position they did, and when there did not exist the mitigating effects of a religion emphasizing moral conduct in life and rewards and punishments therefor after death. At Athens, even the reverence of the Spartan for old age seems to have been more honored in the applause for the act than in the observance. The universal practice of "exposing" undesirable children, sanctioned not only by common practices but by their greatest moralists, argues a callousness to suffering and to the claims of the helpless that is almost inconceivable, and at the same time an inability to grasp the thought of personality with its inalienable rights as viewed by the Christian world.

Greek Education as a Development. — The great significance of Greek education, however, lies in the fundamental characteristics previously enumerated. These, however, were not reached, even in their formulation, at once, and many of the defects enumerated were outcomes of later stages of growth. It becomes, then, of great importance to note the steps of the process in the formulation of these ideals and in the character of their practical realization. This progress is through definitely recognizable stages, each with its appropriate formulation of educational ends, means, and methods. It is in the tracing of this process, as well as in the analysis of the conditions actually attained that there lies the value of this study for guidance in our own educational activities.

PERIODS OF GREEK EDUCATION. — The generally recognized division of Greek education is that into The Old and The New, with the division point at the Periclean age or the middle

of the fifth century B.C. Based primarily upon the political periods of Greek history, this classification finds further justification in social, moral, literary, and philosophical changes, as well as in those relating to educational ideals and practices. Such a general division hardly suffices, however, to trace the educational development along the lines previously indicated. The Old Greek education of the historic period is preceded by the education of the primitive and Homeric times, of the character of which much evidence can be drawn from the Homeric poems. This "heroic period" is succeeded by the historic period of the Old Greek education which developed along two quite diverse lines, best typified by Sparta and Athens.

The New Greek period includes, first, the period of transition in educational, religious, and moral ideas during and following the Age of Pericles. This is the period in which the new philosophical thought was developed, and the new educational practices were shaped. The second of these periods includes from the Macedonian conquest toward the close of the fourth century B.C., until Greek culture is thoroughly fused with Roman life. By the time of the opening of this last period, the philosophical schools have been definitely formulated and during the period are organized into the University of Athens. In her intellectual life Greece now becomes cosmopolitan and ceases to have distinctive characteristics aside from the philosophical schools.

THE EDUCATION OF THE HOMERIC PERIOD.—While it contained the germs of all the higher development, it was yet fundamentally, in regard to its form and in much of its content, that of a primitive people. It was an education that consisted essentially in a training in definite practical activities with no place for instruction of a literary character. Though noble youths are spoken of as having received instruction in arms and martial exercises, and Achilles as

having had instruction in music, in the healing art, and even in rhetoric, this instruction amounted to little more than a training by imitation, into which entered no *instruction*, as that process was understood later by the Greeks. The training for the humbler needs of life — those connected with the satisfaction of the needs for food, clothing, and shelter — was given in the home. That for the higher duties of life, for the more general public service, was received in the council, in wars, and in marauding expeditions.

The Twofold Ideal. — The ideal of this education was simple, yet contained the germs of that of the later historic periods. It included the twofold ideal of the man of wisdom and the man of action; the former typified by Odysseus, the latter by Achilles. Yet while these ideals were developed most highly in these separate types, the ideals themselves were not separable, but were to be attained by each free Greek. The description of Achilles's education, referred to in the preceding paragraph, makes this distinct for the one type. Phœnix says of this education: —

"In all which I was set by him to instruct thee as my son,
That thou mightst speak, when speech was fit, and do when deeds were done;
Not sit as dumb for want of words; idle, for skill to move."

By comparison of this with the brief excerpt from the speech of Pericles by Thucydides given in a previous section, it will be seen that the foundation of their educational ideals at the acme of Athenian splendor had not changed; and, as we shall further see in the philosophy of Aristotle, this union of thought and conduct, in a life of action guided by reason, remains the ideal in the highest formulation during the philosophical stage.

Ideal of Man of Action. — During all the early, or prehistoric period, this conception of the trained or educated man is formulated only in a minor way from the point of

view of the individual; it is determined most largely with respect to the welfare of the group. The primary virtue of the man of action — the warrior — is that of bravery. At the same time their conception of courage is not at all that of modern times, or that of the chivalric period. The chiefs of the *Iliad* gave way to flight on very numerous occasions; those that entered into the wooden horse "wiped tears from their eyes, and the limbs of each trembled beneath him." Similar expressions of what in later ages would be termed cowardice, though then considered as a feeling attributable to the gods, are related of Odysseus and most of the other leaders. So far as there can be given an explanation of such action as consistent with the high ideal of courage, it may be ascribed to the fact that their valor was for the service of the state or of their kings. This made permissible or even demanded a large admixture of caution and of the discretion that "might live to fight another day," which would be wanting if the standard of bravery was absolutely fixed in the attitude and action of the individual without reference to its general object. We must note one other virtue in the ideal of the man of action, — a virtue which partially explains this somewhat anomalous character of their bravery, though it finds expression not only in battle but in every activity of life. It is that of reverence. The man who had no fear, like the man who had no shame in his dealings with his companions, or was insolent in his attitude towards the gods or his elders, was guilty of irreverence — that is, of a lack of proper balance in his actions. That the Greeks were far more sensitive to fine distinctions of all kinds than any other people has been pointed out by almost every student of their literature and life.[1] Consequently not only in music, in sculpture, in architecture, rhythm, and metre, but also in regard to physical pain and matters of conduct, a proportion or harmony, — an avoidance of extremes, — the attainment

[1] E.g. Mahaffy, *Social Life in Greece*, pp. 25 et seq.

to the proper medium was the ideal. Though in a somewhat idealized form, if we take into consideration those moral shortcomings of the Greeks that have been mentioned, Mr. Gladstone describes this characteristic in the following words: —

"The noblest of all the ethical implications of Homer's poems is to be found in the notable and comprehensive word *Aidos*. It refuses to be translated by any single term of English or any other modern language; indeed I doubt whether it had not abated much of its force in the classical age of Greece. It means shame, but never false shame; it means honor, but never the base-born thing in these days called prestige. It means duty, but duty shaped with a peculiar grace. It means reverence, and this without doubt is its chief element. It means chivalry, and though this word cannot be given a good technical translation, it is perhaps nearer in pith and marrow to the Homeric *Aidos*, than any other word we know. But *Aidos* excels it in expressing the faculty of the mental eye turned ever inward. *Aidos* is based upon a true self-respect, upon an ever living consciousness of the nature that we have and the obligations that we owe to its laws. There is no sin that a human being can commit, without sinning against *Aidos*."

Ideal of Man of Wisdom. — Turning to the other side of the educational ideal, that of the man of counsel, or wisdom, here again the virtues were dominantly social in their character. The chief element in this ideal was that of good practical judgment — not merely good judgment in advancing one's own material welfare, but good judgment in the advice of one's fellows, in the service of the tribe or the community. The social point of view also in part accounts for the fact that into this ideal of practical wisdom there entered much of craftiness, — even of deceit, — which, since primarily for the common good, was permissible. Yet it is true that in later periods, even in private life, this virtue of good practical judgment tolerated extremes of conduct in deceit and lack of strict regard for truth, that even the present materialistic

commercial age does not. The other side of this ideal of wisdom was the Greek *whole-mindedness*. In order that good judgment be exercised it was necessary that the desires and passions be brought under control. This control of the appetites by reason is the temperance or whole-mindedness of the man of wisdom; it is the balance or harmony in thought that corresponds to the balance in action demanded by their ideal of reverence.

Social and Individual Elements in these Ideals. — Now while these ideals both of wisdom and of action were dominantly social, yet large scope for individuality was provided for and the attainment of these ideals, especially in the aspects of reverence and whole-mindedness or free moral personality, was made more definite and brought into far higher relief than in the primitive stages of civilization of any other people unless it be the Hebrews. The Homeric poems are an evidence of this. It is when one considers the chief formal means adopted to attain these ideals that the emphasis upon individuality appears most distinctly. The center of Greek life as described in the Homeric poems was in the council. It was through the council that good practical judgment revealed itself and action was stimulated and determined upon. Through discussion good judgment was developed and temperance — the control of the passions — was acquired. The council became both the means for directing their social, political, and military life, and at the same time the chief institution for educational ends. While action must be wholly subordinated to the state, it was only after free expression of opinion. Action must be social, but psychologically — on the side of motive and opinion — the individual became well defined. Here is discovered the means in the fundamental social institution through which individuality was developed. Custom still ruled as with all primitive people; but it is custom passed through the medium of discussion, modified by individual experience, until it justifies itself in the wisdom

of the group. Since it was a fundamental principle with the Greeks, as with no other people, that custom must be reasonable, custom became modifiable through the rational experience of the individual. The individual accepts as his guide to conduct, customs or principles of action, into which his own judgment and experience enter in a more or less conscious way.

Hence, while the scope of the educational ideal was not yet broad, and the definition of individuality was not yet clear, here at least were found the basis and the means for all that future development which is now to be traced. That the basal ideas of all subsequent development are to be found in the Homeric poems is indicated by the fact that these poems formed the content of their intellectual discipline when education was formally organized into schools, and filled as well the function of a sacred literature with other peoples. Professor Jebb sums this up when he says: "The Homeric poems were simple and strong enough to be popular early, and mature enough in art to please an age of ripe culture. Boys learned Homer by heart at school, priests quoted him touching the gods, moralists went to him for maxims, statesmen for argument, cities for claims to territory or alliance, noble houses for the title-deeds of their fame."

OLD GREEK EDUCATION was determined in its character and its organization by the dominant social institution, the city state. This institution, as the outgrowth of the tribe and council of the Homeric period, furnished the ideals and the basis of education, as did the family with the Chinese and the theocracy with the Hebrews. While there are evidences that it was taking shape in the Homeric period (*Iliad* XVIII, 409), it appears full fledged only at the opening of the historic period. The city state grew up by successive amalgamations: patriarchal families grew into village communities, village communities into phratries or brotherhoods, phratries into

tribes, and tribes into the city state. The bond that held the family together was chiefly that of blood relationship. The village community depended upon economic interests as well as the blood tie; the phratries upon religious ties; the tribe upon the communal ownership of land. So, too, the city state, in its beginnings as a union of tribes, was held together by this descent from the old families and the possession of land.

Duties of a Greek Citizen. — To the virtues demanded of the free Greeks in the Homeric period was now added, in the historic period, the new element of property. This, with their descent from the noble families, constituted the "ancient wealth and worth" of the Aristotelian phrase. Though confined at first to the heads of the noble families, the scope of this ideal of nobility or of worth was expanded until it included all freemen, as by degrees these were admitted into full citizenship. With the development of the basal social organization from family group, through tribe, to city state, there had gone on an expansion of the conception of virtue or worth. Each particular stage of development continued as a permanent relationship and demanded its appropriate obligations beyond those of the Homeric ideal, "the speaker of words and the doer of deeds." As the head of a family, the Greek citizen had to perform the duties of a husband, a father, a priest, an owner of slaves; as a member of the village community, he added to these the duties connected with property, communal and family, and the elementary duties of government; as a member of a phratry, he added to these, duties of a religious character; as a member of a tribe, duties of a military and political character; while with the formation of the city state he added an expanding group of obligations administrative and judicial, and of greatest significance of all, those of a wholly new character now to be noted.

Worth and Virtue as the Aim of Education. — Through all of this growth, the virtue or nobility of a citizen, while condi-

tioned by his birth and possession of property, consists in his worth to the state. There is as yet no distinction between individual and civic worth. Now, with the formation of groups of citizens with permanent abodes, in conflict with similar groups, and governed by a nobility sharply distinguished from the masses, the worth of a citizen to the state takes on an entirely new character. Supremacy is now to be maintained more largely by a superiority in intelligence, in moral judgment, and in such an appreciation of the finer aspects of life as would distinguish him from the base-born multitude. Thus it happened that in the Greek city states, especially among the Ionian race, there was evolved for the leisure class an ideal of worth or nobility more largely spiritual than had previously been attained. According to this ideal, service to the state and superiority to the barbarians and the low-born can be shown only by attainment in those interests in life which the Greeks considered under the peculiar protection of the Muses — the fine arts, the sciences, and philosophy. Nobility now becomes worth or virtue in the spiritual sense as well as in the more practical material sense. Ancient wealth and worth in the sense of property and birth are now considered not so much the essential elements of nobility as presuppositions to the more spiritualized forms of wealth and worth. As Aristotle expresses the contrast, the aim of tribal and village organization is mere living, that of the city state is the *good* life. Worth in this sense can be attained, and it can be lost; and at all times is to be maintained by a striving that not only is of service to the state, but produces with it, as the essential feature of the process, the development of free and clearly defined personality. This conception of nobility or worth is the bond which holds the city state together, gives it its superiority, and, at the same time, becomes the ideal attainable in the life of every individual. To produce this worth becomes the aim of education, whether viewed by the state after its interests,

or by the individual according to his interests, though to the Greek in the "old" period these were indistinguishable. However, it must be admitted as the fundamental characteristic of the old education, that they were indistinguishable because the worth to the state continued throughout to be dominant, and that in this worth the military and practical political services were yet of major importance.

Spartan Education reveals the old Greek education in its most pronounced form. Here there was no change from the earliest clear formulation of these ideals, and no change in practice save by way of decline. In fact, after the definite formulation of this ideal in the constitution of Lycurgus, during the ninth century B.C., there was no more change in their ideal than in that of the Oriental type of education. This characteristic furnishes one of the evidences of the relationship of the early Greeks with Semitic and Hamitic influences. But if in society as constituted at Sparta there was no opportunity for the evolution of a higher type, there yet remained some scope for individuality since the code of Lycurgus was rather one of principle than one of precept, as was the case with the Oriental.

Influence of Natural and Social Environment on Character of Spartan Education. — This complete dominance of the state over the individual, secured through a system of laws which furnished at the same time the core of their educational procedure and the structural frame of their society, is explained by the peculiar environment and historical setting of the Lacedæmonian nation. The Dorian Greeks, including the Cretans and Spartans, representing as they did the earliest form of Greek culture in the historic period, replaced or conquered at about the Homeric period an earlier branch of the Hellenes, then in the primitive stage of culture. These Dorians had settled in the Peloponnesus as early as the eleventh century B.C., where, before the time of Lycurgus, Sparta had had some centuries of history of which we know

as little as of that of the Ionian Greeks previous to the first Olympiad. Owing to the constant danger of insurrection from the conquered tribes and of attacks from external sources, Sparta was little more than an organized garrison governed by the general customs of the Dorian Greeks or by those more highly developed borrowed from their Cretan kinsmen. This condition, precarious enough on account of constant warfare, was rendered even more unstable by the tendency of the Spartans, with the greater permanency of abode, to neglect their military training. Their peculiar system of double monarchy, which lacked the strength either of an absolutism or of an aristocratic democracy such as the various Grecian states later developed, had a similar influence. The insecurity of their position was made more evident by the gradual disappearance through conquest of kindred branches of the Dorians — the Messenians and Argives — situated as were the Spartans, and by the growing laxity of behavior and indolence of the people. At the time of the formulation of their customs into the constitution there were but nine thousand Spartan families in the midst of two hundred and fifty thousand subject people. Since many of the free Spartan families disappeared during the latter centuries of their history, while the Perioeci and Helots increased, this disproportion tended to increase. With the decline of the monarchical power which had grown up out of the early tribal organization of the Greeks, it was often customary, as in the well-known instances at Athens of Solon and Clisthenes, for a state to call upon some able citizen to reform their constitution in order to give them a more stable organization, by providing for a wider participation of the citizens in public affairs. About the middle of the ninth century B.C., the Spartans had resort to this custom and called upon Lycurgus to draft a new constitution. It is not supposed that these laws were formulated *de novo* by Lycurgus; rather, that he recognized and strengthened old customs and at the same time introduced

some new ones, especially those of an educational sort, from the related Cretans. This system of law or of education — since it was little else than a scheme for the training of the younger generation by the older, all of whom were compelled to devote much of their time to it — remained in force without modification until near the time of the Macedonian conquest, and though it then began to decline, it yet remained operative until the second century B.C. After this time its vigor much abated and only the remnants of form were left. The details of this system have been most fully presented by Plutarch, who is corroborated in the main points by Xenophon and Aristotle. On some points relative to government and to the economic distribution of land and property, Plutarch is now thought to have been led astray by the reforms introduced in the third century by Agis and Cleomenes.

Aim of Spartan Education.— Determined by the purpose of this constitution, which sought to give the Lacedæmonian kingdom perfect self-sufficiency economically, intellectually, and socially, and complete independence in political affairs through unequaled military power, the aim of education was to give each individual such physical perfection, courage, and habits of complete obedience to the laws that he should make the ideal soldier, unsurpassed in bravery and become one in whom the individual was sunk in the citizen. "There is one point," said Aristotle, "in which the Lacedæmonians deserve great praise; they devote much attention to the education of their children, and their attention takes the form of action on the part of the state." Successful beyond any other scheme of extreme paternalistic education upon the part of the government, the Spartan state possessed a stability and a record of military achievement unequaled by any other Greek state; the Spartan man, a bravery, power, endurance, and self-control that was often wanting, sometimes conspicuously so, in the other Greeks; the Spartan woman, a dignity, a scope for activity in life and an ability to meet these opportunities that

was denied, save in the early period, to women in other parts of Greece; and the Spartan youth, a reverential and obedient demeanor, a reserve in conduct, a stoicism under pain and habits of obedience that were possessed to a far less degree by other Greek boys. The reverse of the picture shows many defects. While the Spartans possessed a keen sense of humor, and while much of simple pleasure entered into their active life, there was but little place in their ideal for the "living beautifully and happily" of the Athenians. There was a lack of the finer sentiments and of Athenian sensitiveness to harmony in conduct and especially to the amenities of life or to its cultural aspect. There was wanting a sense of sympathy, of interest, and of fellowship for others that isolation preserved long after this narrowness had tended to disappear among the other Grecians. While the Spartan was trained to be self-dependent when it came to personal conflict and personal needs, the definition of individuality on the moral side did not proceed far, because there was ever a complete subservience to the law; and history shows that whenever the Spartan was removed from under the compulsion of that law and the pressure exerted by the opinions of his fellows, his moral character revealed itself as insufficiently developed. In the intellectual and æsthetic aspects of life individuality was scarcely defined or developed at all. And finally they did not participate to any extent in the great artistic, literary, and philosophical development which was the glory of Athens.

Organization of Spartan Education. — The concrete details of the Spartan system of education will well repay study both because it is efficient through so long a period and because it is the only example in history of an education that relates to every aspect of moral character and of social life in the hands of a socialistic state that controlled absolutely every phase of the life of its citizens.

The Spartan state, which after Lycurgus was governed by

an aristocratic senate and a democratic assembly composed of all free men, appointed a general superintendent of education — the *pædonomus* — and assistants. After a hardy training of seven years of infancy, during which time the boy was in the direct care of his mother, he was taken from the home and put under the charge of the assistants to the pædonomus. These cared for him in public barracks at state expense. The boys were here divided into successively smaller groups under charge of leaders chosen from older groups of boys. Of those under twelve, Plutarch tells us that in their exercises, "He who showed the most conduct and courage amongst them was made captain of the company. The rest kept their eyes upon him, obeyed his orders, and bore with patience all the punishments he inflicted; so his whole education was an exercise in obedience." This training was always under the supervision of the elders. Of the boys over twelve, "the most distinguished among them became the favorite companions of the elder; and the old men attended most constantly their places of exercise, observing their trials of strength and wit, not slightingly and in a cursory manner, but as their fathers, guardians, governors; so that there was neither time nor place where persons were wanting to instruct and chastise them. One of the best and ablest men in the city was, moreover, appointed inspector of the youth, and he gave the command of each company to the discreetest and most spirited of those, called *Irens*. A Melliren was one who had been two years out of the class of boys (eighteen years); an Iren, one of the oldest lads."

This organization of the entire life of the boys constituted the school. The family, the shop, the church, the social life of other peoples, all were merged into this one educational institution. The boys slept in public barracks; they ate at common tables; they assisted in supplying the necessary food; they hunted wild animals under the direction of their Irens; they participated in the choral dances of their

religious ceremonies; and finally all the remainder of their time was spent in the gymnastic exercises which constituted the chief instrument of their education.

At eighteen the boy entered the class of *ephebi*, or cadets where he received a strict military training for several years. For two years he was classed with the Mellirens who devoted themselves to the serious study of arms and to military maneuvers. During this time he underwent rigid examinations every ten days and devoted much of his time to the instruction of younger boys. From twenty to thirty he was enrolled among the Irens. Then his training became but little differentiated from actual warfare, practiced during the intervals of peace at the expense of the Helots.

At the age of thirty the youth became a man, only to continue both the complete devotion of his services to the state and the training necessary thereto. Though he became a full citizen and the head of a family, yet he continued to reside in the public barracks, to eat at the common table, to serve as a teacher of the youth and a soldier in the field, faring the same as the humblest or the noblest in all the necessities and comforts of life.

Content of Spartan Education. — Into this education there entered very little of the intellectual and æsthetic; it was dominantly physical and moral. Plutarch sums up the content of their education in these words: "As for learning, they had just what was absolutely necessary. All the rest of their education was calculated to make them subject to command, to endure labor, to fight and to conquer." Again he states the purpose of Lycurgus and hence of their education thus: "He thought rather that the happiness of a state, as of a private citizen, consisted chiefly in the exercise of virtue and in the concord of its inhabitants. His aim in all his arrangement was to make and keep the people free-minded, self-dependent and temperate."

There was much conversation and association with the

elders, either at meal time or in the street, when they were wont to test the boys in repartee and ready speech, and to train them in ideas of justice and honor. Especially in the latter centuries of their history, some training in reading and writing was given. We know that they possessed some knowledge of these arts, for accounts were kept and communications of ambassadors and generals were made in writing; but this training was given individually and did not constitute a component part of their national training. Through the choral dances and religious ceremonies there was training in music, for which there must have been some private instruction in the use of instruments. To a large extent their training came through the approved forms of exercises, — running, leaping, jumping, discus throwing, javelin casting, boxing, military drill combined with choral dancing, but above all wrestling. Wrestling required both the fullest exercise of the whole body, in which there was no over-development of the lower limbs, as in running, or of the upper limbs, as in the throwing exercises, and a training in patience, in the control of the temper, in quickness of perception, and in ingenuity in taking advantage of an opponent. Certain phases of Spartan training in endurance and skill are hardly to be termed gymnastics. It was customary upon frequent occasions to beat both the boys and the youths before the altar of Artemis with such severity that death not infrequently ensued. For similar purposes they tolerated the pancratium, though not to the extent of the other Greek states. This pancratium was a physical contest in which the contestants were allowed to resort to any means to gain the advantage of their opponent, even to the extent of maiming or disfigurement for life. This, however, was not due to primary love of cruelty itself, since gladiatorial contests were entirely forbidden. Hunting, their chief sport and occupation of their leisure time, was at the same time a form of exercise quite as important as any branch of the formal curriculum.

With all their emphasis on gymnastics, the Spartans had no gymnasium and no training of a professional character. The trained athlete and the beautifully developed physique — important objects of gymnastic training with other Grecian peoples — were alike foreign to their purposes. The resourceful and handy soldier, keen, cautious, self-controlled, fearless, pitiless, inured to all hardship, obedient to command, respectful to authority, able to act in unison with his fellows, and with that disregard for death that was by the Athenians accounted as insolence — he was the object of the Spartan training. Their music and their choral and religious dances were used to develop similar qualities. Since these dances consisted of intricate movements often in full armor, they were thus accustomed to concerted action. Their music, which lacked all of the æsthetic emotional, even effeminate, influence of other Greek music, inspired to courage and to devotion. The "Dorian mood" received the unqualified approval of Greek philosophers. Plato, especially, would banish all others.

Moral Training. — There remain to be noted certain aspects of their moral training beyond such as were the outcome and the accompaniment of their training in gymnastics and music. In fact the Spartan system of education gives a direct answer to the question, "Can morality be taught?" One means by which the moral results were obtained was the fact that all contests were in the open air, that all the boy's education — in fact all his life — was public. Hence the approval or disapproval of his elders was a constant source of discipline. The frequent conversation, either of an informal character or supervised by the adult in two ways now to be mentioned and relating to moral or social questions, secured similar results. Plutarch describes the first custom in these words: —

"The Iren, reposing himself after supper, used to order some of the boys to sing a song; to another he put some

question which required a judicious answer, for example: 'Who was the best man in the city?' or, 'What he thought of such an action?' This accustomed them from their childhood to judge of the virtues, to enter into the affairs of their countrymen. For if one of them was asked 'Who is a good citizen, or who an infamous one?' and hesitated in his answer, he was considered as a boy of slow parts, and of a soul that would not aspire to honour. The answer was likewise to have a reason assigned for it, and proof conceived in few words. He whose account of the matter was wrong, by way of punishment had his thumb bit by the Iren. The old men and magistrates often attended these little trials, to see whether the Iren exercised his authority in a rational and proper manner. He was permitted, indeed, to inflict the penalties; but when the boys were gone, he was to be chastised himself if he had punished them either with too much severity or remissness."

The other custom, one most characteristic of the Greeks since it tended to occupy the same place in their society that romantic attachments or those of sentiment and affection occupy in ours, was that of the relation between "the inspirer" and "the hearer." The above quotation continues as follows: —

"The adopters of favourites also shared both in the honour and disgrace of their boys; and one of them is said to have been mulcted by the magistrates because the boy whom he had taken into his affections let some ungenerous word or cry escape him as he was fighting. This love was so honourable and in so much esteem, that the virgins, too, had their lovers amongst the most virtuous matrons. A competition of affection caused no misunderstanding, but rather a mutual friendship between those that had fixed their regards upon the same youth, and a united endeavour to make him as accomplished as possible."

In other words, every Spartan adult was a teacher, and every Spartan boy had a tutor, selected through mutual esteem, bound together by no economic ties, but by those of

friendship and affection. Through this companionship usually outside of the hours of regular gymnastic training, he received a further training in justice, in honor, in patriotism, in self-control and self-sacrifice, in honesty — though we may question their conception of that honesty which taught them to deceive and even steal for military purposes, as no doubt they would question our standards which connive at similar deception for economic advantages. In conclusion, it must be admitted that while the Spartan moral training conserved certain elemental virtues, its effects morally, as well as physically, had a hardening, even a brutalizing tendency.

Other phases of Spartan education can only be mentioned. As with no other ancient people, they gave women practically the same kind of education as men — yet with no higher purpose than that of training mothers of warriors. While with them there was an absence of those grosser forms of immorality characteristic of early forms of civilization and constituting a blot upon the fame of Athens, — they yet practically destroyed the family. While they possessed a sturdy character and the elemental virtues in a higher degree than did the other Greeks, they saw little of the beauty of life and possessed few of the graces of character. They have left us a type of education that produced physical strength, endurance, and stamina, the homely moral qualities, strength of character under a despotic system of regulation, and a citizen body strongly imbued with patriotism and a devotion to the state that encompassed every activity and every interest in life. But to future generations they have left little save their example.

Athenian Education during the Old Greek Period. — Save in the simplicity of aim and in the means adopted for training, the old Greek education at Athens had little in common with that at Sparta. Even in these two general respects, there was wide divergence in the relative values assigned to the various elements in the aim and in the emphasis upon the

various subjects of study. All that has been said concerning Hellenic ideals of life and that clear development of individuality worked out by the Greeks applies with peculiar force to the Ionians and, above all, to the Athenians. At the very close of this early period Thucydides (Bk. II., par. 40) formulates the aim of their education in these words, put into the mouth of Pericles, and descriptive of the life of the Athenians : —

"If then we prefer to meet danger with a light heart but without laborious training, and with a courage which is gained by habit and not enforced by law, are we not greatly the gainers? Since we do not anticipate the pain, although, when the hour comes, we can be as brave as those who never allow themselves to rest; and thus, too, our city is equally admirable in peace and in war. For we are lovers of the beautiful, yet simple in our tastes, and we cultivate the mind without loss of manliness. Wealth we employ, not for talk and ostentation, but when there is a real use for it. To avow poverty with us is no disgrace; the true disgrace is in doing nothing to avoid it. An Athenian citizen does not neglect the state because he takes care of his own household; and even those of us who are engaged in business have a very fair idea of politics. We alone regard a man who takes no interest in public affairs, not as a harmless, but as a useless character; and if few of us are originators, we are all sound judges of a policy. The great impediment to action is, in our opinion, not discussion, but the want of that knowledge which is gained by discussion preparatory to action. For we have a peculiar power of thinking before we act and of acting too, whereas other men are courageous from ignorance but hesitate upon reflection. And they are surely to be esteemed the bravest spirits who, having the clearest sense both of the pains and pleasures of life, do not on that account shrink from danger."

This, however, represents rather the outgrowth of the old education than the ideal consciously conceived during the period itself.

The organization of Athenian education, controlled as it was by a different conception of life from that which prevailed at

Sparta, was radically different from that of the latter. The citizen, guiding his life by reason, wise and judicious in his performance of the manifold public duties demanded by the state, yet free in the disposition of his leisure time and in his interpretation of social obligations, as well as strong in body and brave in warfare, could not be produced by an education thoroughly controlled by a despotic socialistic régime, as at Sparta. Rather than to destroy the family, as at Sparta, Athens aimed to preserve it as a means of developing and shaping personality, and upon it placed the burden of responsibility for education. If family pride, parental affection, and a sense of social obligation were insufficient to secure the proper training, the child whose education had been neglected by the father was freed by the laws of Solon from all obligations of support in his parent's old age. All schools were private schools; and the state provided directly for only that portion of education between the ages of sixteen and twenty which was almost wholly physical and a direct preparation for military service. This freedom in regard to schools was allowed to degenerate neither into neglect nor license. The state required a training in music and gymnastics, and while the freedom and the privacy of home life were not destroyed, certain results were demanded by law and the process was supervised by the court of the Areopagus. This court had especial charge of the morals of the youth, and during the period it preserved its original authority, punished with severity grave breaches in the accepted standards of morality. Though the Athenians themselves were occasionally guilty of great cruelty in their civil wars, Quintilian relates that the Areopagus condemned to death a boy who had gouged out the eyes of his pet quails. The officials, pedagogues, and the family of the schoolmaster were the only ones allowed within the schoolroom. The laws of Solon provided the penalty of death for the infringement of this regulation. Since the music schools, especially those for

the poorer children, were sometimes in the open, and the youth in the higher gymnastic schools exercised with the adults, this regulation no doubt referred to the lower gymnastic schools. Even in regard to the palæstra, it is evident from incidental references in the poets that the law was not enforced in later times. Schoolhouses owned by the masters were quite common. The state may have provided some of the palæstræ, or elementary gymnastic schools, as it did, without any question, the gymnasia for advanced physical education. While the philosophers and the leaders of Athenian thought in the later period agreed in their advocacy of a rigid state system of education, no approach was ever made to it, for individual liberty was ever prized too highly to weaken it through any approximation to a socialistic education or to jeopardize the constitution of society by removing the obligation of education from the family.

The training of the child for the first seven years was wholly in the hands of the family. As at Sparta, this training was chiefly physical, since the chief concern was to secure a hardy constitution and a well-developed physique. As at Sparta, exposure of children was practiced, but as characteristic of the greater freedom allowed the individual, this was determined by the father instead of by state officials. Undoubtedly the practice was more corrupting at Athens, for at Sparta only those physically unfit for service to the state were destroyed, while at the former place much greater license was exercised by the father, guided as he might be solely by prudence, economic motives or mere indifference. Nor was the training within the family of as high a character, as a rule, at Athens. There the child was usually given into the charge of nurses and slaves; while at Sparta the mothers retained the direct care and were famous throughout Greece for the careful physical and moral training they gave their children. A most interesting phase of child life, before the definite series of physical exercises in school life was taken up, is indicated

by the fact that Greek literature mentions or describes a very extensive list of children's games, including practically all that we have to-day. So in the home, on the street, in the country, then as now, the child's early education was unconsciously furnished.

School life began at about seven and, for the children of the free Greek families, save those financially unable, continued for eight or nine years. The age of entering, the length of attendance, and the subjects studied depended somewhat upon the standing of the family. In two respects Athenian education differed very widely from modern practice: in that the Athenian boy attended two distinct types of school throughout the period of his early schooling; and, in that the character of work of these two schools was radically different from modern ones. The requirements of the state for training in music and gymnastics were provided for by the establishment of these two types of schools, — both of which the boy attended. It is known that the school hours were long, for a law of Solon forbade their being open before sunrise and after sunset; but it is not known whether the boy began attending the gymnastic school or palæstra before he did the music school or whether he attended both in the same day, nor if so, which was held in the forenoon and which in the afternoon. It is certain that for the most part they were separate institutions kept by private masters, frequently in their own homes. Music schools were often held in out-of-the-way nooks, in temples or other public buildings.

During all of this period, from the time he grew out of the care of the nurse, the Greek boy was in charge of a pedagogue, — a slave or servant, — who was intrusted with the moral oversight and general care of his charge. Too often one was chosen for this who from age, injury, or other disqualification was unfit for any other remunerative service in the household. It is evident that they were frequently ignorant and unrespected by their charges to whom they were but an

interference in the pleasures of the street and of companionship.

At about sixteen years of age the youth was freed from the care of the pedagogue, discontinued all literary and musical study and replaced the training of the palæstra with that of the gymnasium, where he associated most freely with youth of his own age and with adults. Here he was taught or trained in a variety of exercises by a state official, the *pædotribe* — and was under the general supervision of the *sophronist*, or moral overseer. During this period, while the youth was given much wider liberty, he was yet held under strict supervision by state officials, especially the censor of morals; and during tne old Greek period the rigid character of their ideals was such that they were looked upon in the succeeding period as quite puritanical. In many respects they would be so considered by us now.

During the old Greek period there were two of these public gymnasia, the Academy and Cynosarges, erected toward the opening of the sixth century B.C., outside the city walls. Here in the midst of beautiful groves and extensive gardens or parks, the sons of pure Athenians at the Academy, others of mixed blood at the Cynosarges, passed two years in free association with elders and in the physical contests and social and political discussions that prepared them for the life of the Athenian citizen. The fact that only the sons of the wealthier or better class were thus prepared for the duties of public life, reserved the conduct of affairs for this class, and thus, in the old period, defended the aristocratic character of their life from the democratic tendency which later became dominant.

The only intellectual training was this indirect one which he obtained from association with his elders. Through discussion in the agora, conversation at banquets, attendance upon the theater and the law courts, he gained that knowledge of the laws and moral customs necessary to direct his conduct. Moral delinquencies that argued any lack of ap-

preciation of the responsibilities of citizenship brought him before the court of the Areopagus.

Public Education of the Ephebes. — Having completed this two years of preparatory training and demonstrated to the officials that he met the moral and physical requirements of citizenship, he was enrolled among the list of free citizens, took the oath pledging fidelity to the state, the gods and the moral traditions of his people, was furnished in the public assembly with his equipment as a soldier either by his father or, if an orphan through war, by the state, and exchanged the dress of youth for that of the free citizen. There was yet a definite training in the use of arms and in general military discipline before he assumed the duties and privileges of full citizenship. This was the technical period of ephebic or cadet education, common to all Grecian people, though it varied in length from two years (later one year, at Athens) to ten years at Sparta. As during the two earlier years of ephebic discipline — that from sixteen to eighteen in the gymnasium — the youth had remained under the control of parent or guardian, so for these latter two years he remained under direct control of state officials. The first year of this service was spent in barrack or camp life in the neighborhood of the city and was devoted to severe military training in use of arms and in the conduct of practical affairs of the state. In the second year this life became that of the regular soldier in more remote garrisons with the idea of acquainting the prospective citizen with the roads, frontier, and topography of his country as well as with the duties of a soldier. Some have thought that this police duty was performed by the ephebes for the city as well as for the country regions, but this is not positively determined. During the entire ephebic period, no small part of this training in public service consisted in their participation in the religious and social festivals, as is depicted in the Panathenaic procession on the frieze of the Parthenon. In these festivals training in religious

devotion and patriotism is combined with the cultivation of the graces of life and of harmonious physical development. The end of the first year was signalized by a public examination in the use of arms; that of the second, by a similar examination upon the duties of citizenship, which were thereupon assumed.

Even here the process of education did not cease, for the life of the Athenian citizen was one neither of private enterprise nor of private indulgence. On the contrary, the state demanded such services of the citizen that a life of economic activity for personal ends was hardly possible, certainly not to the extent common in modern times. The pleasures of private life, whether amusements in sports and games, attendance upon the theater, or social gatherings for eating and drinking, were controlled by the Athenians, though somewhat less directly than by the Spartans, for ends that were social. The state and the entire social life became a school in which, although effort for physical perfection was not neglected, yet greater emphasis was laid upon intellectual and moral growth. Thus was obtained the highest conception of the elements of nobility or virtue that constituted the ever developing "worth" of the Athenian citizen.

While this organization of education did not become clearly defined in all of its details, probably not even in its chief stages, until late in the old Greek period, it formed the full expression of the old Greek ideals and was a feature of Greek life during the fifth century. The definite training of the ephebes was the latest phase of this early educational development to take shape.

Plato's Description of the Athenian Schoolboy's Life. — The entire training of the Athenian boy is most succinctly described in a paragraph of one of the Socratic dialogues of Plato:[1] —

[1] *The Protagoras*, Jowett, *Trans.*, Vol. I, pp. 138, 139. 1st Ed.

"Education and admonition commence in the first years of childhood, and last to the very end of life. Mother and nurse and father and tutor are quarrelling about the improvement of the child as soon as ever he is able to understand them; he cannot say or do anything without their setting forth to him that this is just and that is unjust; this is honourable, that is dishonourable; this is holy, that is unholy; do this and abstain from that. And if he obeys, well and good; if not, he is straightened by threats and blows, like a piece of warped wood. At a later stage they send him to teachers, and enjoin them to see to his manners even more than to his reading and music; and the teachers do as they are desired. And when the boy has learned his letters and is beginning to understand what is written, as before he understood only what was spoken, they put into his hands the works of great poets, which he reads at school; in these are contained many admonitions, and many tales, and praises, and encomia of ancient famous men, which he is required to learn by heart, in order that he may imitate or emulate them and desire to become like them. Then, again, the teachers of the lyre take similar care that their young disciple is temperate and gets into no mischief; and when they have taught him the use of the lyre, they introduce him to the poems of other excellent poets, who are the lyric poets; and these they set to music, and make their harmonies and rhythms quite familiar to the children's souls, in order that they may learn to be more gentle, and harmonious, and rhythmical, and so more fitted for speech and action; for the life of man in every part has need of harmony and rhythm. Then they send them to the master of gymnastic, in order that their bodies may better minister to the virtuous mind, and that they may not be compelled through bodily weakness to play the coward in war or on any other occasion. This is what is done by those who have the means, and those who have the means are the rich; their children begin education soonest and leave off latest. When they have done with masters, the state again compels them to learn the laws, and live after the pattern which they furnish, and not after their own fancies; and just as in learning to write, the writing-master first draws lines with a style for the use of the young beginner, and gives him the tablet and makes him follow the lines, so the city draws the laws, which

were the invention of good lawgivers who were of old time, these are given to the young man, in order to guide him in his conduct whether as ruler or ruled; and he who transgresses them is to be corrected, or, in other words, called to account, which is a term used not only in your country, but also in many others."

The Content of Greek Education: Gymnastics. —The most striking contrast between Greek and modern education is found, not in its organization, but in its content, especially in the importance given to gymastics. In the period of school life from seven to sixteen, fully half — and before the fifth century much more than half — of the boy's time was given to the palæstra. The entire formal education of the ephebic period, including the two years in the gymnasium and the two years' garrison duty, likewise consisted in physical training. And yet from all this the Greeks got much more than mere physical development. Moral ends were no less important. *Whole-mindedness* or temperance — the control of the passions and the emotions by reason — was thus obtained. Above all the coördination of thought and action, the fitting of conduct to precept, of word to action, was secured through this same training, and there resulted that harmony between the inner thought life and the outer life of conduct which formed the ideal of the Greeks.

Games and physical contests were not indulged in haphazard as with the modern youth, nor participated in by the few for the entertainment of the many. Nor were the standards of excellence the same as modern ones. Success consisted not so much in the winning of the contest as in the evidence given of the proper form of the exercise, the graceful and dignified carriage, the control of temper, and of skill. Running races were usually held in the sand or with lighted torches, so that it can be seen that speed alone was not the test; and the great variety of forms of wrestling indicates that muscular strength was not the chief qualification, nor

development of it the aim. Above all other exercises, especially above those forms that called for display of mere force, were prized such games as called for quickness of perception and evidence of courage or "pluck." Succeeding the games of little children there were used a great variety of games with the ball, and of contests in running, together with a multitude of children's games and simple forms of exercises or calisthenics. In the schools these exercises were organized into a more definite course of study called the *pentathlon.* This included in succession, jumping, running, throwing the discus, throwing the spear, and wrestling. Wrestling developed into boxing, with the open palms of the hands, and into the *pancratium.* This latter was a combination of boxing and wrestling in which hands and feet, in fact any means of discomfiting one's opponent, might be used. At Athens, however, this was reserved for the older boys and was always under strict control of the gymnastic teachers or directors.

The various forms of leaping developed a power of concentration of energy, as did the short runs. Both brought about a general muscular development of the entire body, general agility, and an increased capacity of the lungs. The long races resulted in power of endurance. Discus throwing and javelin casting were especially designed as arm exercises, though no form of exercise so developed poise and symmetry, the complete coördination in physical development, as did discus throwing. This is evidenced in Greek statuary. Javelin throwing also trained in precision of eye and hand. It was in the great variety of forms of wrestling that their training culminated, for in this were combined the excellencies of all the former exercises together with a definite training in moral qualities. Nowhere else was there such a demand for agility, for concentration of energy, for endurance, for suppleness, for quickness of perception, for ingenuity, for the control of temper, for the entire subjection of the passions to the control of reason. This series of exercises was used in public

contests as a means of successively eliminating the greater number of competitors until the final contest was determined by the wrestling match. To these forms of exercise are to be added two others in universal use, — swimming and hunting. The former was an accomplishment of every Greek boy,[1] while hunting was very generally indulged in as a form of training for the older youth that should bring out all of the merits aimed at through the pentathlon, in addition to the emphasis it gave to individual initiative. Hunting, however, on account of the unfavorable situation in a thickly populated and level country, could not be indulged in to the extent it was at Sparta. Consequently the formal exercises assumed a very much more prominent place at Athens than among the Spartans, who rather looked down upon the exercises of the palæstra and gymnasium as effeminate.

Music, to be understood in a much broader sense than is given in the modern meaning of the term, constituted the second portion of the Greek curriculum. "Gymnastic for the body, music for the soul," was their conception of an education. Music in this sense included all that came within the activities presided over by the nine Muses. Hence poetry, the drama, history, oratory, the sciences, as well as music in the more limited sense, came to be included within the scope of this term. It is in the restricted meaning, however, that it formed the larger part of the education of the Greek boy in the earlier period.

In these schools the Athenian boy from early morning till sunset spent most of his time not given to the palæstra. The earlier years of childhood were devoted to memorizing the Homeric poems, with the addition of portions of Hesiod, and later in the historic period selections from the lyric and didactic poets. Beyond this memoriter work the tasks of the school consisted chiefly in explaining the meaning of words,

[1] This is in dispute. See Mahaffy, *Old Greek Education*, p. 46; Blümmer, *Home Life of the Greeks*, p. 126; various classical dictionaries.

phrases, and obscure allusions. After a few years devoted to the mastery of this literature, wherein the early ideals of Greek life are expressed in a form that had imperishable influence on each succeeding generation, the boy was taught to chant these poems to an accompaniment on the lyre. At what age this training in the use of the musical instrument began, is not definitely known. Plato states it as thirteen, though whether he refers to the actual practice or to the regulation in his ideal state, is not clear. For many generations this constituted all of the intellectual education of the Athenian boy and, even after writing and reading became common during the sixth century, continued to form the major part of it during the old Greek period. However long it might take the boy to acquire the ability to play the lyre, mere technical skill was never the end. The task of the boy was similar to that of the work of the old bard. In fact the earlier teachers were the bards or wandering minstrels, and thus alone of early peoples, the Greeks developed their professional educators from a literary rather than from an ecclesiastical class. The playing of the lyre, in the school sense, continued to be this improvising an accompaniment in harmony with the thought expressed in the passage repeated. Here was demanded both an insight and understanding in the interpretation of the poem and skill and creative ability in the construction and performance of its accompaniment. In both respects, there was a demand for individual ability and initiative, and hence there resulted a development of personality quite foreign to any preceding type of education. Indeed it is to be doubted whether education as a process of developing creative power — power of expression, of initiative, and of appreciation — has ever been given a more fruitful form. It is in this sense of the term that the Greeks expected and accomplished so much from their musical education. Many generations later, speaking of their early education, Plutarch writes: —

"Whoever he be that shall give his mind to the study of music in his youth, if he meet with a musical education proper for the forming and regulating his inclinations, he will be sure to applaud and embrace that which is noble and generous, and to rebuke and blame the contrary, as well in other things as in what belongs to music. And by that means he will become clear from all reproachful actions, for now having reaped the noblest fruit of music, he may be of great use, not only to himself, but to the commonwealth: while music teaches him to abstain from everything that is indecent, both in word and deed, and to observe decorum, temperance, and regularity."



GREEK MUSIC SCHOOL, FROM VASE PAINTING, ABOUT 450 B.C.

This musical instruction was common to all Greeks, not alone to the Athenians, though it varied somewhat in the form of instrument and type of song used. To the use of the Homeric poems the Athenians as well as the other Greeks added other simple songs for recital at the table and more elaborate choral songs for festivals and religious services. Aristotle says that "music was introduced by our forefathers for the rational enjoyment of leisure." It was by this means, then, that the Greek, especially the Athenian, developed those forms of worth or of nobility that produced the superiority of the free man over the lower classes, and of the

Athenian over the citizens of other Greek states. This purpose is never lost sight of. Music develops not only this power of appreciation and expression but it produces as well a harmony of soul corresponding to the harmony of the body produced by gymnastics. In this connection Plato says, "Harmony is not regarded by him who intelligently uses the Muses as given by them with a view to irrational pleasure, but with a view to the inharmonical course of the soul and as an ally for the purpose of reducing this into harmony and agreement with itself."



REVERSE OF SAME VASE.

From this point of view it was that the Greek philosophers, notably Plato, in their theories of education, held that the state should most rigidly control the musical education of children through the selection of the song, the instrument to be used, and the character of the music. This indeed was the practice of the Greek states in this earlier period.

The two accompanying illustrations of the music school are taken from a vase painting dating from about 450 B.C. by the Athenian artist Duris. On each side of the vase there are five people; two pupils, two masters, and a pedagogue who has accompanied the boy to his master and remains to look on.

to assist, or merely to return home with the boy. It probably is an exigency of the representation of the artist, that each boy has a master, for we know that a single master had many pupils, though most of the instruction, save in the chorus, was individual. On the one side the boy in one figure is learning to play the lyre, in accompaniment with his master, each having an instrument; in the other figure, he is repeating a portion of a poem which the master holds in book or scroll form. On the other side, the boy is either learning to sing, or is repeating a poem to the accompaniment by the master on the flute, or is learning to play the flute; in the other figure instruction in writing is represented, the master holding in his hands a *triptych* or folded wax tablets, and either correcting an exercise or setting a model. On the wall are hung musical instruments, flute cases, rolls and satchels for books, and on each wall a cylix or drinking cup like that from which the illustrations are taken.

Reading, writing, and the literary element of education are thus included in the work of the music school. Reading and writing were introduced into the schools about 600 B.C., but long before this the Homeric poems were taught orally, as they continued to be afterwards. Through this means the Homeric ideals entered more thoroughly into the life of the Athenians than into that of any other of the Greek peoples. Filling a function similar to that performed by the Bible in the education of our own people in earlier generations, the *Iliad* and *Odyssey* furnished them moral guidance, æsthetic inspiration, and practical direction for every need in life. To the Greek these poems were but little less the work of inspiration than the Bible to the Hebrew and the Christian; similarly, when made the basis of their education, this literature was the source of all the arts and sciences. Though they contained much that could not but be of detriment in the moral education of the young, the explanation and use of such passages were much the same as that made in case of

similar passages in the Bible. On account of this influence, however, Plato would eliminate the use of the poets altogether. This, however, was an extreme view and was called forth by the fact that actual practice had, by Plato's time, gone quite to the other extreme. The simple unified educational process connected wholly with the Homeric literature, producing as it did, by the close of the fifth century B.C., a people that has few equals in intellectual acuteness, in æsthetic appreciation, in creativeness, in breadth of view, and in the capacity for higher enjoyment in life, was supplemented toward the end of this period by an extensive use of other literary material, especially the works of the gnomic and lyric poets, such as those of Simonides and Sappho, and by the early dramatic writings. These new poets introduced new types of songs and declamations. To the extent that this occurred during the period of the old education, it must be remembered that this literature was of the highest type that has ever been produced, and that for generations preceding our own time it has been considered the very best material that the entire history of mankind has evolved for educational purposes. But so far as the fundamental ideals of the people are concerned, they continued to be found in and presented to each succeeding generation through the Homeric epics.

The full development of this literary element is the dominant characteristic of the succeeding period. Reading and writing are thus incidental. The higher moral results of this education were obtained in no small degree without their assistance through the possession of the literature, transmitted by the spoken word. The processes of reading and writing were acquired much as they are with us, or have been until recent times. The ordinary alphabetical and syllabic methods were used. But in reading there was much more of educational value than with us because of the important training in power of discrimination or in judgment in the use

of accent, and similarly, since the words were written continuously without a break, in the separation of one word from another. Likewise there was no punctuation, so that it was necessary that the child should get the idea in order that the reading might even be intelligible. After some years of this practice, much emphasis was placed on beautiful reading, preparatory to further work in declamation.

Arithmetic, other branches of mathematics and drawing, were not introduced until later. So from such simple materials — poetry and music — were obtained these educational results, great though simple in their harmony.

Dancing remains as the one element in the old Greek curriculum yet to be mentioned. This might have been included under gymnastics, but it is more than physical exercise and training. In a way it might have been included under music, for it is but the expression through rhythmical motion of harmony of thought. It differed from modern dancing in several respects. Since it was the rhythmical movement of the whole body, there was much more of exercise leading to harmonious physical development. Since it was chiefly religious or civic or military in its character, its aim was not merely the pleasure of the individual. Having these social motives, it possessed a thought content as well as an emotional one and a moral outcome as well as an æsthetic one. Such dancing for the most part was performed in companies, civic processions, military drill, or religious worship, or at least in preparation for these, so that it was a training in harmonious action with others. Dancing was the union of the harmony of thought and emotional experience expressed through music, and the harmony of physical development produced through gymnastics. Continuing the quotation from Plato given on page 93, regarding the purpose of music in education, comes this statement concerning the purpose of dancing: "and rhythm was given by them (the Muses) for the same purpose, on account of the irregular and graceless

ways which prevail among mankind generally, and to help us against them."

The Moral Purpose of Greek Education is thus indicated by the results they hoped to gain for the use of each element of its content. The quotation just given presents this moral influence as the purpose of dancing. There has already been noted the fact that the gymnastic education was designed to produce certain moral results, such as control of temper and the general subjection of the passions to reason; that through this training, patience, endurance, fortitude, courage, loyalty, devotion, and a consideration for the rights of others were to be developed. Concerning the moral ends of the musical education, a sentence from the description of Protagoras will bear repeating: "They (the music teachers) make rhythm and harmony familiar to the souls of boys, that they may grow more gentle, and graceful, and harmonious, and so be of service both in words and deeds; for the whole life of man stands in need of grace and harmony." This entire speech, which Plato puts in the mouth of the Sophist, is an argument to prove that virtue is teachable because the whole purpose of Greek education, as organized in their schools, is virtue.

Such religious training as the Athenian boy received, aside from that given in the training for public religious services, wherein both hymns, choral dances, and elaborate ceremonial procedure found place, he got in the worship of the household gods. In one sense all of this training in the school and the home had a religious bearing, since even the athletic contests were in honor of the gods; but in another sense, as a differentiated interest in life and one connected largely with the life to come, the religious element played little part in the Greek boy's education. Less directly connected with religion than with most peoples, the moral education of the Greek adopted one other means quite unique. By the direct association of the boy with an adult, as a child with the pedagogue

and as a youth with the "inspirer," the Greeks brought about in a most practical way the moral education of the young. Subject to great dangers and abuses, this custom was nevertheless productive of great results. While the pedagogue was usually a slave and hence often, though not necessarily, of inferior character, yet the moral conduct of the boy was carefully controlled. On the other hand, the relationship established later in life, while not so universal at Athens as at Sparta, was purely a voluntary one and established what the Greeks considered to be the only true bond between teacher and pupil, — sympathy concerning moral aspirations and mutual affection and affinity. Thus while the gymnastic and music teacher could give the boy the elements of these branches, the truly educative process, that connected more directly with the shaping of moral character, had to be based upon other than economic grounds. Though all his teachers united in giving him dignity of bearing and of breeding, becoming manners, grace of conduct, modesty, reverence for elders, and respect for laws, these special teachers furnished him a direct model for the formation of character which the boy must approximate through conscious and unconscious imitation acquired through constant association.

The Method of Greek Education finds in this custom its chief characteristic. So far as their education was an imitation it was not, as with the Oriental, an imitation of fixed form or dead custom, but of a living model, possessed of strong personality and stimulating to the development and expression of individuality.

So far as it was a direct inculcation of certain qualities, it was by the immediate example of these virtues lived by the teacher. For the Greek boy education always had an attainable aim, since he possessed a concrete, definite model by which to shape his character and direct his conduct. Education was not a formal, lifeless process, but a living of a type of life full of activity and pleasure, of expression of self and of

attempt at concrete forms of virtue made real to him through the conduct of an "inspirer."

At the present time, when so much emphasis is laid upon expression, or the constructive and doing side in education, one other aspect of Greek method is of special significance. Greek education was first of all a doing, only in the second place a learning process. Early action was shaped directly by authority. Just as our schools devote most of their time to the shaping of the child's ideas by authority, so, too, the Greek schools devoted their efforts to the shaping of conduct. In these schools the boy learned to run races, to jump, to wrestle, to excel in physical exercise and contests, to play the harp, to recite poetry to the accompaniment of the harp, to read and declaim, to dance. It is all "a doing," — a formation of habits of action. Only afterward does it become a learning. When the habit is once formed by exercise, training must be followed by instruction in order to make the habit permanent by making it rational. Instruction then aims to replace arbitrary authority with reason as the basis of virtuous conduct. Instruction thus produces this harmony between the inner life and the outward action. The relation between instruction and activity or expression, as developed in modern education, is thus reversed. The Greeks held to the apostolic doctrine that if one does the deed, the knowledge of doctrine will follow. The relation of these two fundamentals to Greek thought is expressed by Aristotle, basing it, as he does, upon the yet more fundamental quality of birth, or good breeding, in this passage: —

"There are three things which make men good and virtuous: these are nature, habit, reason. In the first place, every one must be born a man and not some other animal; in the second place, he must have a certain character, both of body and soul. But some qualities there is no use in having at birth, for they are altered by habit, and there are some gifts of nature which may be turned by habit to good or bad.

Most animals lead a life of nature, although in lesser particulars some are influenced by habit as well. Man has reason, in addition, and man only. Wherefore nature, habit, reason must be in harmony with one another (for they do not always agree); men do many things against habit and nature, if reason persuades them that they ought. We have already determined what natures are likely to be most easily moulded by the hands of the legislator. All else is the work of education; we learn some things by habit and some by instruction."

The Results of Old Greek Education on state and on individual cannot be adequately described in brief terms. It may be summed up by stating that the Greek culture of the fifth century B.C. was its product. Here before individualism has gained full sway, but while personality finds free and full expression in the service of the community, the highest development of the individual under the full control of institutional life finds one of its richest expressions in history. Nevertheless the limitation of Greek civilization previously mentioned must be borne in mind: while Athens had become a democracy, but a small portion of the population, one tenth at most, came within the qualification for citizenship. Slaves and the non-Athenians had no portion in this. Again, those customs of the Greeks, such as exposure of infants, cruelty to slaves and captives, subjection of women, and others quite as repugnant to modern ideas, were decided limitations. But of the free population itself, of the general status of society, the following estimate of Professor Mahaffy is well within the limits of sober modern appreciation:—

"No doubt the Athenian public was by no means so learned as we moderns are; they were ignorant of many sciences, of much history — in short, of a thousand results of civilisation, which have since accrued. But in civilisation itself, in mental power, in quickness of comprehension, in correctness of taste, in accuracy of judgment, no modern nation, however well instructed, has been able to equal by laboured acquirements the inborn genius of the Greeks. Let

me add that no modern theology has taught higher and purer moral notions than those of Æschylus and his school, developed afterwards by Socrates and Plato."

A stable, free, and vigorous social organization was developed; the first in which stability is not purchased at the price of the suppression of the individual. Individuality found expression in almost all those forms of activity that are valued in modern life as interests that are worthy of man's fullest devotion. The Greeks possessed the ability, rare among the most favored modern nations, of using the ordinary activities of life or the services necessary to society for the development of the individuality of its citizens. Evidenced in every phase of their life, this characteristic was nowhere more strikingly expressed than in the games and gymnastic exercises. There was nothing compulsory about these contests in games between the various Greek states or the citizens of a given state. They were of no *practical* value to the state, or even to the citizen. They formed no preparation for war or for any immediate service to the state. They were but expressions of the personality of the citizen. Through them the individual declared his freedom from the limitations imposed upon man by nature and indicated his superiority over his fellows. For this he received no reward save the plaudits of the multitude and the esteem of his associates due to one who had thus achieved some form of personal excellence.

In place of the extremely realistic interpretation of the elements of virtue or nobility characteristic of the earlier ages, by the close of this period, and as a product of its education, worth has become a purely moral quality. While noble birth and wealth continue in ordinary thought to be a presupposition of virtue, in their highest thought it transcends all material qualifications. Euripides, one of the greatest products of this century and of this education, expresses this view in his *Electra:* —

"There is no plummet line to measure excellence, for the varying natures of men confuse our reckoning. Oft have I seen the son of an honourable father nothing worth, and again good children sprung from evil parents; I have seen leanness in the soul of the rich, and a large heart in the body of the poor. How then can we surely discriminate the good? Is it by the test of wealth? Then should we indeed employ an unjust judge. Is it by poverty? But this too has its weakness, and makes men mean by its necessities. Shall I take the test of arms? Who, looking to the array of battle could testify to real worth? It is better to leave these things undetermined; for here is a man, not great among his fellows nor supported by the pride of family, yet he has been found among the crowd a man of the most sterling worth. Will not ye learn wisdom, that speculate full of vain theories, and will ye not judge men by personal experience, and the noble by their characters?"

NEW GREEK EDUCATION: TRANSITIONAL PERIOD. **Character of the Period.**—The old Greek education resulted during the fifth century B.C. in a brilliant period of personal achievement and national progress which has never been surpassed in history. The culmination of this period was the Age of Pericles. During and immediately preceding this period, the highest products of Greek civilization were attained. In politics such men as Themistocles and Pericles controlled her destinies; in art the work of Phidias and Myron and the construction of the Parthenon are evidences of their taste and their achievement. Herodotus and Thucydides laid the foundation of the science, though to the Greeks it was an art, of historical writing. The tragic drama reached its perfection in the work of Æschylus, Sophocles, and Euripides, and comedy in the plays of Aristophanes. In every aspect of human activity and human thought there was a similar endeavor at creation and an achievement that is beyond comparison with that of preceding historic periods. But this period of fruition was as well one of transition and of origins. While the old education laid the foundation for

these achievements, it was insufficient to meet the demands of the times and altogether inadequate for future needs. The life of this period made so much greater demands upon the individual and offered so much greater opportunities for personal achievement, that it demanded an education suited to the period, — one wherein the chief emphasis was laid upon individual development rather than upon service to the city state and wherein the individual was not merged in the citizen. The answer to this demand was the *new* Greek Education.

Transitional Forces. — There were at work in Greek society during the fifth century a number of forces that need to be mentioned for us to understand the nature of the new Greek education. Some of them may be considered as causes of the new education, some of them, at least to an extent, as a result: all were a part of the same general change in the character of life.

Political. — The most fundamental of these causal changes was political. Toward the close of the sixth century the old aristocratic constitution of Solon was replaced (509 B.C.) by the democratic one of Clisthenes, which admitted to citizenship all the free inhabitants of Attica. These now served in the popular law courts or assemblies. Many of the officers were to be chosen by lot as in the case of the modern jury. To the popular assembly was given the power to *ostracize*, or banish by secret ballot, any citizen considered dangerous to the public welfare. Under this system of free government the political power, the material prosperity, and the culture of the citizens increased with rapid strides. Under this government, too, the hordes of the Persians were overcome in the short period from 500–479 B.C., with the result of enhancing the prestige of Athens, the power of the people, and of increasing the demands for opportunities for individual effort and achievement. These demands were partly met by the greater concessions to the democracy made by

Pericles. The growth of democracy had been the triumph of the trading and commercial classes, who were now possessed of the rights of citizenship, with the result of opening up a great variety of new opportunities for individual advance. Leisure time with its resulting opportunities now came to depend upon wealth. Wealth which could be acquired by all with the requisite ability, and the attending privileges of citizenship were no longer the possession of a class restricted in numbers and in initiative.

A further change of fundamental character grew out of the successful leadership of Athens during the Persian wars in the formation of the Delian league (477 B.C.). At the close of the war this league was converted into what amounted to an empire, and the treasuries of the league were converted into funds used by the city of Athens for its own glorification. In the period between the close of the Persian War and the opening of the war between Athens and Sparta, the democracy of Athens was the imperial master of all the surrounding cities and island states of the Ægean and of the Ionian states of Asia Minor. This mastery was not gained by force but by statesmanship; and by diplomacy this leadership was kept. In the management of these affairs, in the determination of policies in the assemblies, in the control and disbursement of the funds there was called for by the Athenian state an entirely new type of *worth* in the citizen. The political skill and argumentative and persuasive ability that hitherto had found scope only in the council and the assemblies and courts of restricted powers, now found a field for exercise if not world-wide in extent at least possessing all the inherent possibilities for developing the powers of political leadership and statecraft found in complex modern societies. The old education had afforded no preparation for this new life.

Social and Economic. — Through the leadership in the Persian War and in the Delian league, Athens had now become

the head of the common brotherhood of the Greek people. In the growing interchange of ideas, disseminated by traders, by political embassies, by travelers, who now became very numerous, and by an altogether new class of teachers, — the sophists, — that now came to possess formidable influence, this common brotherhood was cemented. But it is a community of ideas and of social life which results in the coming centuries in a common Greek civilization no longer peculiar to Athens or to chosen cities, but to the race as a whole. At the same time the political unity and even political independence is lost through most disgraceful civil strifes and local wars, until the old régime is replaced by a unity in government imposed from without.

This merging of Athenian life into the greater unity of a Greek life as a whole, this extension of the economic interests leading to a toleration of foreign traders and an increasing tendency upon the part of Athenian citizens to visit foreign marts, this sending of embassies, and the new custom among the Athenians of visiting foreign or other Grecian lands for mere curiosity's sake, led to a much broader tolerance of novel ideas and strange practices than had ever been the case before. Tolerance of new ideas led to criticism of old ones, and finally to modification or rejection of much that had been characteristic or even fundamental in previous periods. Athens, from being a conservative, isolated town, now became a community situated in "the highway of the world," and a meeting ground for all novel ideas. That there was a breaking up of old customs, and that the conservative forces were aghast at the revolution, is not to be marveled at.

Literary. — A change that is not so much a cause as it is an indication of the deep-seated modifications in the thought life of the Athenian people, is to be found in the character of their literature. The earlier half of the fifth century was dominated in literature by the tragedy. This form of the

drama dealt with fundamental ethical, social, and religious problems; its characters were the gods and mythical heroes; its form was that of the highest art; its occasion was that of religious worship. The problem underlying all tragedy was that of the conflict between duty and interest: so that its very nature indicates that the problem fundamental to the education of the new period had become a conscious one in their ethical thought before it became a practical one in the field of educational endeavor. Opposed to the older conception of the duty of the individual to subordinate his interests to those of the state, the characteristic of the new Greek education was this greater emphasis upon personal interests. The dominance of comedy in the latter half of the century is of yet greater significance, for in its satire on the pretensions, the shams, the follies, the extravagances, and the corruption common to every phase of life, it indicates that in real life self-interest had won the victory over duty. Since the new education was but a corresponding emphasis on individualism, this change in literature paralleled the one in education.

The comedy deals with problems or incidents in the daily life of the people, — of domestic unhappiness, of the relation of the sexes, of political corruption, of educational formalism and pretense: its characters are those of real life: its treatment is of the freest, lending itself to great exaggeration: whether it upholds the old and ridicules the new or the reverse, its function is to instruct and amuse. Thus it loses much of its religious character. Other forms of art indicate the same change. The severity and grandeur of the early art of the Greeks gives place in the transitional period to a studied grace; and when the ideas of the new period are fully triumphant, a perfection in the beauty of form in turn degenerates into a mere study of effect and of adornment.

Moral and Religious. — This change in the drama and in art indicates a corresponding one in morals and religion. The moral customs of the Greeks had found a partial basis

in the authority of the gods of the old mythology, spiritualized as they had been in the course of time. This religion, while not so fundamental to their social structure as the religions of Oriental societies or even as their own earlier genetic religion, yet furnished certain support for their state, for the sanctity of the family, and for the obligation to live a life not of ease, self-indulgence, or even self-aggrandizement, but of devotion to the common good. With the rejection of their old mythology and the mere formal retention of the worship of the household gods, the very basis for the morality of the old genetic type was gone, and there was no corresponding development of rationality sufficient for the multitude to replace the basis of a moral life. In the later tragedy, in the comedy, and in the didactic poets the fortunes of men are no longer determined, as in the early drama and the still earlier epics, by the interposition of the gods or the will of heaven. Natural causes and human calculation now replace the religious basis of morality. The Greeks, as a people, never found any connection between the life to come and conduct in this life; now, with the removal of all present interposition of the gods in the life of man, there developed that complete divorce of morality from religion that gave the new teachers of any religion or any moral creed an opportunity that was not neglected. Extreme skepticism and unreasoned conservatism come into conflict, with no question as to where the ultimate victory would lie. Skepticism in belief leads to freedom, even license, in conduct. The new teachers, becoming specifically teachers of morals, reject altogether the old basis of morality, and along with that many of the traditional standards. As a consequence, the orderliness, the dignity, the gravity, the devotion to the public need of the old Greek life is replaced by a greater frivolity of disposition, a disposition to place personal gratification above public service, and a general tendency, evidenced even in the views of the poets, to reject the old moral ideas and even to hold that the immoral cause of

action has often much to be said in its favor when judged from the purely rational point of view.

Philosophical. — One other phase of the change in the thought life of the times is to be noted, since it forms an integral part of the general educational change. Since the mythological tales of the earlier poets, even when interpreted through rationalistic principles as purely allegorical, no longer offered a sufficient logical basis for the belief of the times, the higher thought of the Greeks — their philosophy — had been directed toward finding some explanation of the material universe, its origin, its constituent elements, its forces, and its relation to man. In time these explanations offered by Anaximander, Heracleitus, Zeno, the Atomists, etc., were cast aside as unworthy of acceptance by the new school of thought. The new teachers, the sophists, followed to a considerable extent by the philosophers, Socrates and Plato, looked upon the whole procedure of the ancient philosophers with skeptical eyes. Some of these found the desired explanation in a noumenal existence, — in a series of forms back of the phenomenal worlds. To the sophists, who questioned all things, such knowledge of the material universe was impossible and the search for it unprofitable. It is in connection with such discussions, that Gorgias posited that nothing exists; or even if it did exist, it could not be known; or if existent and knowable, it could not be communicated to others.

It is evident that the old philosophy, dealing with such subjects as it did, was unable to furnish any basis for conduct or give any practical preparation for the needs of life. With the rejection of the religious basis of morality the demand now made upon philosophy was to furnish a guide to conduct, — a basis for the practical life. The new thought in its search for truth turned its attention inward, and in the thought life attempted to determine the nature of reality. The sophists held that "man was the measure of all things;"

that is, that the test of truth, of reality, and the very nature of knowledge was altogether subjective and hence that these fundamentals were after all but relative. The later philosophers were not content with this superficial judgment but took up the inquiry and pushed it further. The new tendency in thought — the direction of attention toward the universe of ideas and emotions, instead of the mere speculative attempt to interpret *a priori* the nature of the material universe — is the feature of the times to be noted here. From this tendency came the formulation of the problems that yet remain the fundamentals of philosophy; from it also came the formulation of the sciences of ethics, of logic, and of the earliest conscious attempts to work out the solution of the fundamental educational problem. The development of free personality under moral law, giving widest scope to individuality along with the fullest acknowledgment of obligation to one's fellows through institutional life, constitutes this problem in education as also in ethics. Before discussing the statement of this problem as made by the Greeks, a further account of the transition to the new education is desirable.

The Demands upon Education made by these social changes, political, economic, ethical, literary, and the like, were twofold. There was first a demand for greater freedom for the individual in action and thought to correspond with this growth of freedom in the political sphere. Second, there was a demand for a training or an education that would enable the individual to take advantage of the unprecedented opportunities for personal aggrandizement and achievement. There was now demanded ability to discuss all sorts of social, political, economic, and scientific or metaphysical questions; to argue in public in the market place or in the law courts; to declaim in a formal manner upon almost any topic; to amuse or even instruct the populace upon topics of interest or questions of the day; to take

part in the many diplomatic embassies and political missions of the times, — the ability, in fact, to shine in a democratic society much like our own and to control the votes and command the approval of an intelligent populace where the function of printing press, telegraph, railroad, and all modern means of communication were performed through public speech and private discourse, and where the legal, ecclesiastical, and other professional classes of teachers did not exist. The Athenian state made no provision whatever for higher intellectual training of a formal kind, but it did offer opportunity for this in the freedom it gave the individual during the period of his training in the gymnasium, and after the military training of the ephebic period. No means, however, existed in Athenian society as organized under the old régime for giving to the individual such training as would provide for personal achievement in place of civic service. Such instrumentalities now appeared in the form of a new class of teachers, the *sophists*.

The Sophists have long been considered as teachers of immorality who were responsible for the disintegrating tendencies in Greek thought and the demoralizing tendencies in Greek life in the period we are now considering. Even yet a sophist is defined as "an impostrous pretender to knowledge; a man who employs what he knows to be a fallacy for the purpose of deceit and of getting money." Primarily by the work of the historian Grote, reënforced by the studies of later historians and philosophers such as Zeller, it has been shown that this view was largely due to the prejudices shown by Socrates and Plato against a class of teachers among whom they themselves were numbered, but from which they were distinguishable, not so much by their contemporaries as by later students, who detect the difference in their completed work from the ideas of the sophists, in certain fundamental characteristics to be noted hereafter.

Educationally the sophists were Greek teachers, not usu-

ally native Athenians, who saw the defects in the existing organization of education at Athens and offered to the youth of the city the training so much in demand as a preparation for a career of personal aggrandizement in the political and social life of the times. The sophists were students of affairs who through wide travel and contact with Grecian and Oriental life in many centers had picked up the current learning concerning natural forces and phenomena, political life, social institutions, and popular questions of the day, especially those concerning principles of conduct and morality. Possessing a rhetorical power in formal debate and private discussion that was a result of a training and experience, neither of which were to be obtained at Athens, these men quickly secured attention, built up a great reputation and through their willingness and ability to impart this knowledge and the rhetorical training in its use, they soon came to exercise a tremendous influence in Athenian life. To be sure many of them gave merely a formal training that often consisted in furnishing their pupils with set speeches upon given topics to be repeated upon definite occasions, such as trials before the courts, or with smart sayings and fragmentary information to be used whenever chance opportunity offered. Many, on the other hand, gave a more consistent and thorough course in the study of questions of the day and in the rudimentary natural and historical sciences of the times, and a training in dialectic power through discussion and in rhetorical power through public speech. For the most part, however, they themselves taught through formal discourse or lecture; this more thorough training was a later development. Two characteristics rendered them especially disliked by the thinking Greeks, especially those of a conservative character; the one was the profession of their ability, as indicated by their title, *wise men*, to give information on any subject; the other was their demand for remuneration for their services. With the charlatans among their number, — and they were

probably not a few, — this took the form of offering to impart to any one any subject or any ability, if the remuneration was sufficient. Since power in argumentation constituted the great desideratum, it was the boast of many of them that they could give one the ability to argue either side of any question with equal facility. These two characteristics ran counter to some of the fundamental and most worthy traits of old Greek life: the former violated their principle of harmony and reverence and bordered on the insolent; the latter their idea that development of character, which was the inclusive aim of education, could result only where the relation between teacher and pupil was based upon mutual esteem and regard and where the financial nexus was altogether wanting. Consequently there arose toward the sophists a most violent antipathy expressed by all the writers with conservative inclination, and a natural desire upon the part of Plato and the members of the philosophical group to differentiate themselves from the despised class, however much they might have in common with it.

Though the sophists gave information concerning phenomena of nature, science, and society, and in fact almost all topics that would receive treatment in the modern newspaper and magazine, yet their chief concern, because it was the chief interest of the populace, was in questions of personal and political conduct, — questions of a moral nature. So radically did their views differ from the old Greek beliefs, that they were accused then and often since have been accused of teaching immorality. Undoubtedly some of them, since they were wholly irresponsible, were guilty of holding and expressing views subversive of all the old Greek ideals and of the principles of morals commonly recognized at all times. But such was not their whole purpose or their general characteristic. What they did do was to discuss moral questions and to settle them from a point of view not religious and social, but so rationalistic that to the old

Greek it amounted to immorality. On the other hand, their moral teachings placed an unprecedented emphasis upon individuality. As a class they did not teach immorality, for they held no common system of views; the only idea common to all was that there were no such universal ideas, or standards of conduct, but that, in the words of Protagoras, one of the greatest of them, "Man is the measure of all things." As this meant the individual man, the tendency long developing in Greek society toward giving individuality more and more emphasis in moral life and in the educational process, here finds its culmination, for this is pure individualism.

The sophists taught, then, that the individual was to determine his own ends in life; his own standards of conduct in accomplishing these ends; the extent of his services to the state; of his observance of the old customs and moral traditions, of his sacrifice of time, and wealth, and energy for the common good. Naturally many found no basis for continuing the old customs, and a period of great laxity and even dissoluteness followed. Many lacked the rational power to find a sufficient basis for moral conduct or sufficient moral stamina to observe if they believed in such. The immorality of the sophists, then, was a negative one, to be found in their exaltation of the individual. The individual now found a place distinct from and above his life as a citizen. From the point of view of the teachings of the times, this life, devoted to his own development and the expansion of his own personality, was of greater moral worth, than was one of observance of the customs wherein was dominant the morality of the city state and the old Greek life. From the point of view of the old Greek, the sophist tendency was an immoral one; from the point of view of modern thought it is seen to be a necessary negative or critical stage, destruction of the old, but clearing the ground and even laying the foundation for the new. At the worst it was in education but a practical and utilitarian tendency toward giving the individual full freedom in the life

of the times, and thus affording scope for the development of personality. Later thought was to furnish for this wider personality a more stable basis than could be obtained in the natural reaction following the rejection of the old which so limited and restricted the individual in the use of his own powers and the exercise of his own judgment. At best, the work of the sophist which, as defined by Socrates, was to teach young men "to think, speak, and act" was no unworthy motive and no insignificant service to perform for the state. Only in two respects, to which the modern world can hardly object, since both are accepted in modern education, can the sophists as a class be held to be teachers of immorality. They did believe that morality and wisdom could be taught theoretically, whereas in the old Greek education these had been the products of a practical training in certain activities; and they did hold that the basis of morality was subjective; — was to be found within one's own intellectual and moral being; was to be based on reason and not, as in the old period, upon custom and tradition, as revealed in their religious thought and institutional life. Nevertheless, these very views did much to encourage the tendency to unrestricted individualism and contributed much to the demoralization of Athens. The term sophist continued in use for many generations, and, even in the Christian centuries, continued to be applied to the teachers in the universities as practically synonymous with the modern term professor; yet the sophist in the original sense, as a teacher attached to no institution and to no one locality, one who professed to give instruction on all subjects, was characteristic of only about a century. We have given the date of the Macedonian conquest (338 B.C.) as the close of this transitional period, since by this time the overthow of the independent political life of Greece made evident the fact that individualism had conquered, and that education would no longer be dominated by the state. However, a generation or more before this time the sophists had become differentiated into

two much more distinct classes of teachers typical of the cosmopolitan period of the new Greek education.

Resulting Changes in Education. — *In Higher Education* this change is most clearly seen and may be most briefly stated. That period in the old Greek education, from sixteen to eighteen, which had been devoted to physical training and indirectly to political training was now devoted more and more to purely intellectual training of a higher type. Much of this, as has already been explained, was of a purely formal character and related to the development of rhetorical powers. In private rooms, on the street, or in the gymnasia, the sophist collected his body of adherents or students, imparted the knowledge, and gave the training desired. While this did not disarrange the old organization, it introduced a new phase which now received the greater attention. It has been noted that the ephebic training from eighteen to twenty was not universal, and it is probable that the new sophist training, since it offered a far more practical training than the old, drew largely from the ephebes. Certainly in the period following, that of young manhood, the sophists found a yet greater opportunity and drew to their private schools many who had entered the state of full citizenship. The very fact that these private schools could obtain such a hold is an evidence that individual interests were then followed to an extent altogether unknown in the preceding period. Within a century these new motives controlling education became so generally accepted that the earlier type of teacher, moved by desire of gain and the attainment of a reputation based upon intellectual ability and success, — motives wholly legitimate with the modern teacher but much in question then, — had developed from this irregular type of instructor into a definite teaching profession.

In content the transition from the old Greek to the new Greek education is evidenced by many changes. In this higher education of an intellectual character, it has been

seen that literature, or literary training at least, formed the basis. But it is literature in a different sense, for it is literature now studied from the point of view of form rather than of content and intended for use from the point of view of pleasing and persuading the multitude rather than from that of instructing it in traditional moral ways. To the sophists is due the formulation of the grammatical and rhetorical study of language and literature. Much of their instruction related to the choice of words, the proper formation of phrases — to grammatical structure and rhetorical effect. Most of the more important sophists wrote treatises on grammar.

In the Palæstra and Music School. — The content of the lower schools also underwent a change. The tendency of sophistic teaching to develop in the pupils self-assertiveness, a love of pleasure, glibness of speech, and even an unscrupulousness of conduct, finds its effects in turn in the education of children. The same emphasis upon formal literature, and hence an increasing tendency to introduce the later didactic poets, offering opportunity for hair-splitting discussions; the tendency to introduce new musical instruments, the cithera with a greater number of strings, the flute and other wind instruments, or at least more complicated ones; the use of new types of music, such as the Lydian and Phrygian airs, aiming more at the subjective, pleasurable effect; the use of the warm bath; the relaxation of the severity of the physical training, — all these go to show a greater love of ease, an effort after pleasure, an attempt to please the individual and to allow him to gratify his own desires. The extent to which each of these changes would develop individualism to the detriment of the old rigidly moral training is evident. While it is not safe to accept unreservedly the interpretation of the Greek comic poets nor to rely solely upon them for the facts of the time, yet with careful allowances for the purpose and the occasion of the

writing, no better description of the contrast between the old and the new education is to be found than in the controversy between the Just and Unjust Causes in *The Clouds* of Aristophanes. This argument, at least, typifies the position of the conservative Greek, as he sees the practices of his boyhood and the moral ideals of his manhood going to decay.

In Method. — The changes in method have already been suggested. With an increased emphasis upon study of form, with the growing importance of intellectual acuteness in discrimination between words, with the enlarged rewards for mere showy effectiveness, the old emphasis of training in moral habit as the basal part of education is replaced by the exaltation of instruction — the giving of the theory — into the place of prominence. All education becomes more literary and hence more theoretical. Instruction in grammar and rhetoric, soon to be followed by instruction in other subjects, reverses the old order of method and makes of their education a process of theoretical instruction. Evident, too, is the change in method of gymnastic training from one wherein the aim is to harden and drill men for practical services to the state, to one wherein the aim is a life of mere æsthetic enjoyment. Education becomes more distinctly a school process looking toward intellectual and practical, that is, individual, ends.

The Results of the New Education, both in the century of transition and in the following period of complete dominance, were naturally of a twofold character. If one looks solely upon the darker side and is guided by the strictures of Plato, Aristophanes, and the conservatives, as are some historians, such as Curtius, it is a period of extravagance in customs, of license in action and of skepticism, irreverence, and anarchy in belief. If, on the other hand, one tempers the views of these critics by what is gained inferentially from their own writings and more directly from writers less renowned, as is done by Grote (Chapter 67), it is a period of the greatest enlight-

enment in opinions, of moderation in policy, and of attainment in all the higher aspirations of life. In fact, as characteristic of a period of greatest freedom, both results may be true. With its attendant benefits and its unavoidable evils the absolute freedom of learning and of teaching, the "Lern- und Lehrfreiheit," which is the ideal of modern higher education, was an actual realization in this period. Such evils are the necessary price to be paid for such blessings. With Athens, however, since such freedom attended not only learning and thought, but prevailed in the world of moral conduct, of political activities and of the religious life as well, the cost was a heavy one and was paid to the uttermost. On the one hand, it is true that the democracy was swayed by its passions; that prejudice instead of justice controlled in the law courts; that the sycophants swarmed and worked their unworthy trade to the demoralization of social life; that vices loathsome to modern ideas prevailed; that scoffing irreverence replaced the sedate faith of the earlier periods; that youth exulted in a flippant independence and a supercilious agnosticism; that family morality decayed; that the pursuit of riches, with its attendant extravagance, now became characteristic; and that in every phase of life, as a result of this freedom given to the individual, there was evident a license in conduct and an indifference to the old moral ideals such as to shock both the conservative holding tenaciously to the views of the older period and the student of the present who, because one unconsciously feels the perspective of the present but can acquire only with great labor that of the past, is prone to judge the present by its best, but the past by its worst. The better to see the period in its real light, let us in conclusion turn to a brighter picture as painted by Wilkins.

"But above all things the Athenian of the time of Pericles was living in an atmosphere of unequalled genius and culture. He took his way past the temples where the friezes of Phidias seemed to breathe and struggle, under the shadow of the

colonnades reared by the craft of Ictinus or Callicrates and glowing with the hues of Polygnotus, to the agora where, like his Aryan forefathers by the shores of the Caspian, or his Teutonic cousins in the forests of Germany, he was to take his part as a free man in fixing the fortunes of his country. There he would listen, with the eagerness of one who knew that all he held most dear was trembling in the balance, to the pregnant eloquence of Pericles. Or, in later times, he would measure the sober prudence of Nicias against the boisterous turbulence of Cleon, or the daring brilliance of Alcibiades. Then, as the great Dionysia came round once more with the spring-time, and the sea was open again for traffic, and from every quarter of Hellas the strangers flocked for pleasure or business, he would take his place betimes in the theatre of Dionysus, and gaze from sunrise to sunset on the successive tragedies in which Sophocles, and Euripides, and Ion of Chios, were contending for the prize of poetry. Or, at the lesser festivals, he would listen to the wonderful comedies of Eupolis, Aristophanes, or the old Cratinus, with their rollicking fun and snatches of sweetest melody, their savage attacks on personal enemies and merry jeers at well-known cowards or wantons, and, underlying all, their weighty allusions and earnest political purpose. As he passed through the market-place, or looked in at one of the wrestling schools, he may have chanced to come upon a group of men in eager conversation, or hanging with breathless interest on the words of one of their number; and he may have found himself listening to an harangue of Gorgias, or to a fragment of the unsparing dialectic of Socrates. What could books do more for a man who was receiving an education such as this? It was what the student gazed on, what he heard, what he caught by the magic of sympathy, not what he read, which was the education furnished by Athens. Not by her discipline, like Sparta and Rome, but by the unfailing charm of her gracious influence, did Athens train her children."

This period of transition was the decline and the extinction of Greek political activity; but neither in this nor in the earlier portion of the following period — that of the culmination of the new Greek thought — was there an exhaustion of intellectual vigor. On the contrary, it was the period of the greatest

intellectual activity, with probably a higher average of intellectual attainment than has ever been reached by any people; certainly a period unsurpassed in its intellectual products. The mental vigor of the entire people was stimulated, their intellectual horizon broadened, and the content of their thought was much enriched. The first evidence we meet of this is in the work of

THE GREEK EDUCATIONAL THEORISTS. — The Problem of the Educational Theorists was identical with the problems in ethics and in philosophy, the solution of which was attempted by the same philosophers. The old moral bonds being rejected, the problem was to discover or construct new ones; the old philosophy being invalidated, there arose the obligation to originate a new one; the old educational aim of developing that worth of the individual demanded by the institutional life no longer being recognized, there existed the necessity of formulating new conceptions of worth or of virtue, primarily providing for individuality but at the same time recognizing some moral bonds relating the individual to his fellows. The occasion giving rise to the educational theorists was the conflict between the new Greek education and the old. Their task was to formulate a new conception of worth or virtue based primarily upon the conception of individuality instead of upon that of citizenship. In one respect the theorists agreed with the new Greek educators, in that they held the ideals as well as the process of the old Greek education to be wholly inadequate: in one respect they agreed with the conservatives who rejected the new, in that they held the negative attitude of the sophists to be wholly inadequate and believed that some general moral bonds must be furnished. The attitude of the sophists toward knowledge was of the same negative and destructive character as that toward moral principles. Along with the ancient standards of conduct, the previous conception of knowledge had come

to be looked upon as antiquated and false, so that the sophists despaired of the attainment of any satisfactory interpretation of reality, of the universe, or of life. Questioning the validity of all general truth, the ablest among them denied the very possibility of knowledge; while the rank and file of the new teachers sought merely to give interesting information, or offer plausible argument, or produce showy rhetorical effect, all for material gain or utilitarian purposes with no thought of fundamental validity or ultimate consequences.

The task of these theorists on the moral side presents a remarkable parallel to that attempted by a modern epoch-making philosopher, who likewise united in the problem the ethical, philosophical, and educational elements. From the point of view of the modern positivism or evolutionary philosophy, the two ages present a striking analogy. Substituting the idea of conception or purpose of education for that of the scheme or system of ethical beliefs, the following passage from the *Introduction to Ethics* by Herbert Spencer is an exact statement of the problem presented for solution to the Greek educational theorists: —

"I am the more anxious to indicate in outline, if I cannot complete, this final work, because the establishment of rules of right conduct on a scientific basis is a pressing need. Now that moral injunctions are losing the authority given by their supposed sacred origin, the secularization of morals is becoming imperative. Few things can happen more disastrous than the decay and death of a regulative system no longer fit, before another and fitter regulative system has grown up to replace it. Most of those who reject the current creed, appear to assume that the controlling agency furnished by it may safely be thrown aside, and the vacancy left unfilled by any other controlling agency. Meanwhile, those who defend the current creed allege that in the absence of the guidance it yields, no guidance can exist: divine commandments they think the only possible guides. Thus between these extreme opponents there is a certain community. The one holds that the gap left by disappearance of the code of supernatural

ethics, need not be filled by a code of natural ethics; and the other holds that it cannot be so filled. Both contemplate a vacuum, which the one wishes and the other fears."

Thus in ages quite remote in time the problems of individualism present the same questions in education as well as in ethics and in morals. To the Greek philosophers, as to the modern one cited, progress in thought had destroyed the validity of the old institutional morality. Its place had to be filled by a morality based upon knowledge. Formulated from the thought content of a given age, such a morality would be adequate to the needs of the time. Thus the divorce of the philosophy and the thought life from the practical life was one cause of the insufficiency and the failure of the old. To make this union and thus furnish a new basis for the intellectual and the moral life, now united as never before, was the task first essayed by Socrates.

Thus these philosophers, or educational theorists, attempted the problem growing out of the changes previously mentioned as characteristic of the period and affecting every phase of life. Their work is characterized by Zeller as follows: —

"Scientific ethics became necessary because of the giving way of moral convictions; a wider inquiry, because of the narrowness of the philosophy of nature; a critical method, because of the contradiction of dogmatic systems; a philosophy of conceptions, because of the uncertainty of the observations of the senses; Idealism, because of the unsatisfactory nature of a materialistic view of the world."

Socrates, *His Relation to the Sophists and the Old Greek Educators.* — While Socrates did but state the problem and vaguely suggest the principle of solution, he initiated the tendency that gave to humanity the highest formulation of the principle of the moral life that, until then, it had been able to reach. At the time of Socrates there were other tendencies in Athenian society besides the individualism of the sophists;

but instead of looking toward the future all was reactionary. Aristophanes headed the conservative party that would return to the good old times. Xenophon in his *Cyropædia* described the education of the Persians in such a way that he held up in a thinly veiled form, as an ideal to which to return as an escape from the existing anarchy, the Spartan system of education, modified by the introduction of some aspects of the old Greek aim as formulated by Athens. The Pythagoreans suggested a scheme of socialism, both formulated philosophically and worked out practically, which was radically antagonistic to the individualistic tendencies in Athenian life and hence extremely distasteful. But Socrates accepted as his starting point the basal principle of the sophist teaching, "Man is the measure of all things." This he did in no superficial sense. If man is the measure of all things, the first obligation which man must assume is to know himself. To Protagoras, who formulated this fundamental tenet of the sophists, knowledge consisted in sensations, — a philosophical belief not foreign to modern times wherein it is represented in an elaborated form by a large and influential school of thought, one might almost say the dominant thought of the past two centuries; on the contrary, to Socrates, knowledge consisted in conceptions, in ideas universally true for all individuals instead of in sensations possessing no canons of validity outside of the individual. In accepting the command of the oracle, "Know thyself" as the guiding principle of his life's work, Socrates afforded to the Athenian public a new type by reason of his tendency to introspection and his power of inward concentration. So opposite is this to the dominant Grecian interest concerning outward manifestation of power and excellence, in the beautiful in form and in pleasure to be gained from a life of activity, that it accounts for much of the hostility of the Athenian public toward Socrates.

Within the consciousness of the individual, within the moral nature of man, according to this new teacher, is to be found

the new moral standard, the determination of the aims of life and of the purpose of education. Not, however, in this consciousness as mere opinion. A characteristic of this age was the dominance of opinion. Questions relating to natural phenomena, natural forces, political policy, economic procedure, moral principles, were all thrown into the arena of public discussion. As nowadays questions relating to the operation of economic laws, of jurisprudence, of finance, are often settled by popular vote; as now each individual by virtue of his citizenship assumes to be able to settle such questions in his own judgment; so it was then under the influence of the sophists with a much wider list of subjects. "Come now, whether do you think that Jupiter always rains fresh rain on each occasion, or that the sun draws from below the same water back again," proposes Strepsiades in *The Clouds* as a fertile and typical subject for the exchange of opinion. Against this sway of opinion Socrates set himself with all the force of his wonderful personality. He accepted as a divine calling the mission of testing this conceit of knowledge in men and of endeavoring to develop such opinion into true knowledge. It is not the individual in man but the universal that gives him his freedom and makes him worthy to have this great privilege of determining his standards of conduct and his aims in life. As opposed to the purely individualistic basis of opinion, knowledge possesses universal validity. From this basis Socrates arrives at his fundamental principle, "Knowledge is virtue:"—by guiding conduct by those ideas that possess universal validity, instead of by mere opinion, one lives the virtuous life. The aim of education, then, was not to give the offhand information that, combined with superficial brilliancy of speech, constituted the ideal with the sophists; but to give knowledge to the individual by developing in him the power of thought. Possessing such power, one would be no longer satisfied with a mere passing opinion arrived at with superficial rapidity, but would argue back from such initial

opinion to the discovery of the ultimate basis in that which is true for all, and thus arrive at knowledge. Every individual has within himself the power or the possibilities of acquiring this power, — of knowing and appreciating such truths as those of fidelity, of honesty, of truthfulness, of honor, of friendship, of wisdom, of virtue. This is the phase of knowledge in which Socrates was interested, — the knowledge that is derived from one's own experience and that relates to and is the basis of right conduct. While such knowledge is the basis of "the art of living," that highest of all arts in which Socrates was so interested, the insufficiency of his teaching, at this point, was the chief reason for its failure to effect the practical reforms so needed in Athenian life at that time. Knowledge of right is necessary, but it does not in itself provide for right feeling that leads to the application of the knowledge in right doing.

The Socratic Method. — The method of teaching adopted by Socrates was the conversational one. As represented in Plato's *Dialogues* his teaching has two purposes. The first of these is to demonstrate that knowledge lies at the basis of all virtuous action. Throughout such dialogues of Socrates as are preserved for us by his disciple, Plato, it is his custom to draw his illustrations from the humblest and most common activities and operations of daily life. The cobbler, the fisherman, the mule driver, the cook, the housewife, the soldier, the slave, furnish him with his illustrations and with the most fundamental truths he teaches.

In the case of all craftsmen and all practical work of this kind, knowledge is the basis of right action. The muleteer is permitted to drive and beat the mules, while the free boy is forbidden, not because the one is a slave and the other free, but because the one has the knowledge and the other lacks it. The charioteer may drive in the race and the free boy who owns the chariot and team must remain a spectator, not because the one is of age and the other immature, but

because the one has the knowledge that the other lacks; the free boy is even under the control of his pedagogue, his own slave, thus reversing what would seem to be the conditions of freedom, because the one has the knowledge of right conduct while the other has this yet to learn. Knowledge is the prerequisite of free action, the basis of all right action in all the arts. This is true also in the highest art of all, the art of right living. Here as elsewhere Socrates holds that such knowledge is to be gained not from the mere opinion of the individual but only by a search for what is common to all, what is of universal validity.

Nature of Dialectic. — But without training the individual is unable to discover that which possesses universal validity in his own experience and in his own consciousness. Such truth is to be gained only through the process of dialectic. Consequently the aim of his work and the general aim of education was to develop in each individual the power of formulating these universals, of developing the power of thought. Socrates termed his work, *maieutics*, — the art of giving birth to ideas. His custom was to begin a conversation by asking for information, thus getting the views of his companion, which he seemed to accept and espouse. Then through adroit questioning, these original opinions were developed in the words of the person to be instructed, until the folly and absurdities of the superficially formed opinions were fully shown and the supposed possessor of wisdom was brought face to face with consequences that were either contradictory to the original opinion or so absurd that the opponent lost all confidence, or becoming involved in the mazes of the argument confessed the error of his opinion or his inability to reach a satisfactory conclusion. By further questioning, the whole truth of which the original opinion was but a fragment was then developed. This is the method fully revealed in the Socratic dialogues of Plato.

Philosophically, dialectic is the process of forming no

tions from conceptions. Differing from that of the earlier which dealt directly with objects, the philosophy of this later Greek period is interested in things only through the medium of the mind, — only through their conceptional existence or representation. Hence the method employed is that of distinguishing between the qualities of things, between appearances and reality, between permanent form and changing appearance. Such a method is that of forming whole-thoughts, conceptions, — in other words the dialectic process. Educationally, dialectic, or this conversational method systematized and rationalized, is the method by which knowledge, truth, or the universal is reached. Externally this method, as illustrated in the *Dialogues* seems little more than dialogue ; but it is a conversation shaped toward peculiar ends, so that it becomes a discourse inductively arranged to culminate in the formation of a general truth relating to conduct or life. Psychologically, it is the process of the formation of concepts from percepts. Logically it is the resolution of species into genus or the reverse. Scientifically it is the process of inducing general principles from a multiplicity of phenomena. With Plato it becomes a type of life, — one given to reflection. He defines dialectic as "a continuous discourse with one's self." Thus it is the reflection on experience by which one distributes the particulars of experience, the acts and phenomena of everyday life, under general principles and thus guides one's life by moral law. With dialectic the power of finding the permanent in passing experience, possessed with peculiar force by the Greeks, becomes a conscious one. That which in the earlier periods unconsciously made for their development now becomes the conscious purpose of their education.

Influence on Method and Content of Education. — The immediate influence of Socrates' teaching on education was twofold. In regard to content there was an unprecedented

emphasis on knowledge. This coincided with the similar influence of the sophists, who gave to the Greeks the knowledge demanded by the new condition of the times. With Socrates, as with the sophists, this was knowledge in the practical sense, — that which related immediately to life, but with this radical difference: the sophists gave the information requisite for the practical success of the individual irrespective of the moral claims which institutional life had upon him; Socrates aimed to develop knowledge concerning conduct, knowledge of practical value in life, but possessing universal validity and consequently moral worth. Since the knowledge of Socrates contained this compulsory moral import, it was a much broader conception than the knowledge of the earlier philosophers, than the information of the sophists, and even than the modern conception of knowledge. Nevertheless, to the multitude, this distinction was hardly evident, and for them the influence of the philosophers coincided, in this respect, with that of the sophists.

To both Socrates and Plato little mental improvement came from the direct impartation of knowledge. Against the popular methods of the sophists, which aimed to disseminate information through the formal lecture, these philosophers opposed the dialectic or conversational method, the object of which was to generate the *power* of thinking. Their aim was to create minds capable of forming correct conclusions, of formulating the truth for themselves, rather than to give them the conclusions already elaborated. Hence the method of dialectic came to replace both the method of formal delivery of the sophists and the method of training in habits through doing characteristic of the old Greek education.

As previously indicated, this method is adequate when it is applied to the formulation of ethical truths: it enables one to determine what is the just act, what is right conduct, what is honorable, etc., since in all of these respects every individual has had concrete experience. The limitations of the

method appear when applied to subjects wherein the content is not given by the experience of the individual. The dialectic method can give scientific form, classification, arrangement, interpretation, but it cannot of itself give content. Concerning mathematics, science, history, language, literature, it is inadequate, since the content is racial, and does not lie within the scope of the experience of the individual. In the educational process the content subjects are to be acquired by methods other than the dialectic. The limitation that the mere summing up of any number of instances always leaves the possibility of error in the general conclusion, unless the test of the negative instance is applied, exists in the very nature of the inductive process. In such cases, when the attempt is made in these subjects mentioned to formulate conclusions based upon one's own experience alone, this limitation becomes a positive defect; the methods may be uncertain, indefinite, and inexact. As the opposite of the dogmatism of the formal methods of the sophists, which gave to the individual the immediate satisfaction but not the ultimate truth, dialectic was a protest. The indefinite ending of most of the Socratic dialogues is but another evidence of the inadequacy of this method alone, as is also Plato's comparison of the method to the climbing of a mountain, where one successively reaches the summits of numerous foothills and peaks only to find other heights beyond him. The truth is that Socrates and Plato were interested in the process as a process, and in the power developed by its use. By their immediate followers the method, or at least the mastery of it, became a dominant aim in education, with the result that they became a people given over to endless discussions relating to refinement in the definition of words and subtleties in the distinction of thought, rather than to the truth and validity of the thought content. They became in reality a nation of talkers, not of doers of deeds. At the same time, the acuteness, agility, suppleness, and versatility which we think of as

peculiar to the Greek mind to a degree never equaled by any other people is also a result of this period. When this method was given permanent form in the science of logic first formulated by Aristotle, it became the basis of an entirely new conception of education, to be noted later, namely, education as a *discipline*.

Plato (420–348 B.C.). — *Importance as an Educational Theorist.* — Granting at the outset that the relation of Plato to the education of his times was purely theoretical, and that the concrete details of his scheme are impracticable for that or for any time, we are here interested in seeing: first, that with Plato we find the most elaborate and suggestive attempt to solve the educational problem presented to the Greek thinkers of the times, — the problem of the conflict between the welfare of the individual and that of society; second, that the ideal of life and of education as formulated by Plato was a most noble one, one most suggestive for all ages, and one from which reformers as well as most humble laborers in the cause of human advancement then as now have drawn inspiration; third, that in the detail of his scheme, however chimerical and even reactionary it may have been, we find pertinent criticism of the ideals and the practices of his times and of education of the old Greek period as well; and fourth, that in his criticism of literature and gymnastics and in his general formulation of the course of training of the rulers in his Utopian scheme of society, he gave a suggestion concerning the content of education that has been of far-reaching historical influence and that possesses permanent value.

Similarity of Plato's Views to those of Socrates. — Concerning the Aim of Education: Agreeing with Socrates that the great need of the times was the formulation of a new moral bond in life to replace the ancient wealth and worth of old Greek society rejected by the individualism of the new, Plato, like Socrates, attempted to formulate a new basis for

the moral life which should give sufficient scope for the individual while at the same time providing an ample basis for institutional life. Plato agreed with his master that this new bond was to be found in *ideas*, in universal truth, in the intelligence through which men were united by nature. Virtue consists, then, in knowledge, in whole-thoughts as opposed to opinions. Socrates was content with this mere formulation of the purpose of education and of life and with the formation of the power of attaining to this knowledge on the part of the few whom he taught. But Plato, profoundly interested in the nature of these whole-thoughts, carried his investigation much further.

This work of determining the nature of knowledge, his metaphysics, is a most important part of Plato's philosophy, but one that can be referred to here only to the extent that it touches his general scheme of education. Knowledge, or whole-thoughts, consists in ideas as opposed to objects; in universals as opposed to concrete perception; in the ideas represented to us by common or class nouns. The form, then, is the permanent thing which gives rise to all the multiple, material reproductions of it; the *idea* is the imperishable essence which gives reality to the substantial form in which it exists. The idea is the only true reality. Such objects as a table, chair, or desk are not the highest form of reality; in the Platonic sense they are not realities at all, but merely ephemeral reproductions, which emanate, as it were, from the original life-giving, or existence-giving reality or form. There always must exist a harmony between the phenomenal object and the idea from which it emanated. The more nearly perfect this harmony, the more nearly the object performs the function for which it was created by this approximation to the idea which determines its ideal function the more nearly it approximates the idea of good. There is a good for every phenomenal existence. The function of the eye is to see,—to the extent that it possesses this power it is

the good eye. So it is with the entire realm of realities, these are arranged in a series of goods until the highest good, the Divine Principle, is approximated. It is from this highest good that the lesser goods have emanated, and by this that their proper function and their proper forms have been determined. The good of each phenomenal existence, including man, is to attain to its appropriate function, that is, to enter into harmony with its corresponding or originating idea. So much for a brief statement of the Platonic metaphysics and ethics.

It is in this sense that knowledge is virtue: for knowledge is the recognition of the harmony between phenomenon and the form or the idea; it is the recognition of the true function of all particular types of existence and of the approximation to it of its phenomenal reproductions; it is, in other words, but the recognition of *the good.* To attain to this virtue, this knowledge of the good, is the aim of the individual life; to develop this knowledge, this appreciation of the good, is the aim of education.

Concerning the Method of Education: As in the case of the aim, so also in regard to educational method, Plato accepts the Socratic solution, but elaborates it. Whole-thoughts are to be reached by the process of dialectic, for dialectic is at bottom but the activity of the mind in forming conceptions through the discrimination of qualities and attributes. It is in this sense that Plato defines dialectic as a "continuous discourse with one's self." While Socrates found this power in all and conversed with Pericles or the street cobbler alike, Plato considered that this longing for the supreme good, this power of attaining knowledge was to be found only in a few; for to him this vision of eternal truth was a function of a special or sixth sense, a "sense for ideas." Hence, whereas the influence of Socrates fell in with the democratic tendency of the times, the influence of Plato was more reactionary; and in his ideal schemes of education he returned to an aristo-

cratic form of government, of a socialistic nature, wherein individualism, except as it found expression in this highest class, was suppressed.

On the other hand, it is to be noted that this suppression of the individual in this idealistic scheme is more apparent than real; for his rigid classification of individuals or social units is largely a self-determined one, and any particular individual is fitted into the scheme by the determination of his particular powers. Such classification, not based upon birth or wealth, but upon the inherent ability of the individual to appreciate higher forms of truth and to perform social activities as this native ability is developed by an ideal system of education, in reality offers to the individual the opportunity for fullest possible development of personality, if it be granted that a philosophical class capable of directing society has been placed in control.

Dialectic then becomes a type of higher education almost identical with what would now be termed the study of philosophy; for, during a period of five years, those capable of profiting by this higher education were to devote themselves wholly to the contemplation of the good, to the study of ideas. As a term, dialectic becomes synonymous with the higher intellectual life, and its followers are recognized as a distinct order of beings separated off from the masses of citizens. In this intellectual class distinction is found the basis of some of the most characteristic features of education for many centuries following.

The Advance beyond Socrates made by Plato in his educational thought is most apparent when he attempts to indicate *how* knowledge, in this truest sense, can be made the basis of moral life; how it can be applied to the moral re-organization of society; how whole-thoughts can be applied to human life. His answer is simple and direct: this is to be accomplished by having those who alone possess this knowledge, the philosophers, become the rulers in society. The philoso-

pher is he who knows the highest good. He alone can determine to what extent the phenomenal existence approximates the idea and thus attains to the good; he alone, then, can determine that disposition of men and things which shall result in the moral advancement and ultimate perfection of the race. Society must be so re-organized that this lover of wisdom shall control and direct its activities and relationship; education should aim to develop this power in every individual within whom the capacity exists, and through the guidance of the philosophers should prepare and direct each individual for the performance of those duties which by nature he is most fitted to perform. *The Republic*, or *The Dialogue on Justice*, gives the concrete answer to these demands.

The Educational Scheme of The Republic. — In answer to the question how absolute justice as the basis of social life can be obtained, how philosophers can be given the control of society, how knowledge can be made the basis of a new social structure, Plato elaborates an order of society, with a system of education to support it, that is based upon a psychological analysis of the individual. He finds in the individual these faculties: the intellect, whose virtue is prudence; the passions, whose virtue is fortitude; the desires or appetites, whose virtue is temperance. Therefore, when in the life of the individual the intellect restrains the passions, rules absolutely the desires, and thus controls action; when the passions serve as an ally of the intellect, as a dog assists and obeys a shepherd; when the desires render absolute obedience, — then the virtues appropriate to each are attained and justice is maintained in the life of the individual. Thus it would be also in society if the classes corresponding to these faculties should perform their appropriate functions. "Society is the individual writ large." Upon this figure of speech, which has led many a subsequent thinker astray, Plato bases his theory. Corresponding to the faculties of the individual

there are in society according to him three classes: the philosophical class, devoted to the pursuit of knowledge, whose virtue is wisdom; the soldier class, devoted to warfare, whose virtue is honor; the industrial class, devoted to trade and crafts, whose virtue is money-making. If the philosophical class should rule; if the soldier class protect and defend according to the direction of the first; if the artisan class should obey and support the other two, — then social justice would be attained.

Membership in these classes is to be determined, however, by no caste rule. Through a system of education which discovers and develops the qualifications of the individual for membership in any particular class, virtue in the individual and justice in society is to be obtained. To education is thus consciously ascribed a much broader function than ever before; for it now is to provide for the fullest development of personality in the individual and for the maintenance of a perfect form of society. Through education the conflict between the old and new Greek life is to be solved.

Education of Children and Youth. — In his outline of education for children and youth Plato held very closely to the existing scheme. The early Greeks, he held, had builded better than they knew. Plato's philosophical exposition was to make patent that which they had unconsciously elaborated. Early education was to begin at seven and extend until the sixteenth or seventeenth year in the study of gymnastics and music; the one to produce harmony of the body, the other for the harmony of the soul. The years from seventeen to twenty were to be devoted to the military gymnastic training of the ephebes. In the earlier period other subjects, reading, writing, arithmetic, geometry, etc., were to be introduced; not so much in the sense of regularly organized disciplines, as in that of mere occasional activities to be determined by the interests of the child. During this period he was not to be forced in his studies; for though compulsory gymnastic

training might be of value, compulsory intellectual train ing could not be. This same training in the earlier period would readily determine who, from their very nature, could not profitably continue to devote their time to education. Such should be drafted off immediately by the ruling class into the ranks of the industrial class. Similarly the military training from seventeen to twenty would indicate those possessed of spirit and courage but who lacked the ability to profit by any higher intellectual training. Such were to be drafted into the military class, where they were to find their life work.

One of the most striking features of this organization of early education is Plato's discussion of the use of literature and music. While he sanctions the proper use of nursery myths and of poetry in the *didascaleum*, he condemns the Homeric poems and most of the early poetry of the Greeks as having an immoral influence and teaching erroneous ideas concerning the gods. Music is to be used strictly in the old Greek sense for the training in reverence and a rigid system of morals, and to this end both music and literature are to be closely supervised and censored by state officials. Dramatic poetry as mere fiction, and hence false, is to be banished altogether.

Higher education, for which all the previous training has been but preliminary, is now to be organized for those capable of undertaking the intellectual discipline. This conception of the higher intellectual life, with its appropriate preparation, altogether beyond the ordinary and traditional demands of life, is the great contribution of Plato to the education of his times. From twenty to thirty those who show evidences of a higher intellectual capacity are to devote themselves to the study of the sciences, — arithmetic, geometry, music, and astronomy, — now in no fragmentary and unorganized form, as in the early stage of education, but definitely systematized in a most serious study of the realities of life. Music, arith-

metic, etc., are not music and arithmetic as we understand them so much as a study of the scientific form underlying these arts. It is in music as the science of the harmony of sound, in geometry as the science of the relation of forms, not as a practical art to be used in war and commerce, that Plato is interested. Hence, he states, "In astronomy, as in geometry, we should use problems, and let the heavens alone, if we desire to have a real knowledge of the science and to train the reasoning faculty by the aid of it." Such study will develop the intellect of those capable of ruling; but since these sciences to a considerable extent deal with opinion, there remains yet the study of pure being, of ideas as separable from and distinct from their material embodiment. This study furnishes the true subject of investigation for the philosopher. Many who are competent to master the sciences, have not the intellectual power to proceed to the study of true being; hence at thirty there is another selection to be made.

Those not chosen for this advanced study are drafted into the minor offices in society, while those of superior mind devote five further years to the study of dialectic, as the study of ideas is called. Through such training and such contemplation of ideas they come into the possession of the highest knowledge, of truth itself. The possession of this truth constitutes virtue. At thirty-five these philosophers, or possessors of truth, are to return into social life as guardians of the interests of society and as directors of its fortunes. For fifteen years these philosophers, trained at the expense of society, are to devote themselves to the promotion of the social welfare; at fifty they are to be allowed to retire in order to devote themselves to that life of study and of contemplation which is the life of supreme good.

The Educational Scheme of The Laws. — *The Laws* of Plato is the product of his extreme old age, as *The Republic* is of the prime of his manhood. The continued decline in patriot-

ism and public morality at Athens, the failure of his attempt as a philosopher to assist in the government of Syracuse, and the natural conservatism of old age explain the reactionary character of *The Laws*. *The Republic* is a radical venture into socialism as a remedy for individualism; as a remedy for the same evil *The Laws* propose a return to a conservatism, almost a despotism, modeled on old Greek lines. *The Republic* banished the poets, on account of their immoral influence; *The Laws* banish or at least ignore the philosophers. That phase of education in the earlier work devoted to dialectic is in *The Laws* entirely omitted. Education culminates in a mathematical or astrological study that is closely allied to religion. Plato praises the religion and the moral conditions in early society, quite after the manner of Aristophanes; but finding it impossible to return to the gross polytheism of the period, he substitutes an astrological religion, the priests of which together with an hereditary prince become the rulers in society. The outlines of education, with the omission of the highest stage, is quite similar to that of *The Republic*, though animated by a different spirit. The literary element, now small, is strictly guarded by the state, on the assumption that the decline in Athenian life has been due to a corruption in music and in literature. While the details of the scheme of education are even closer to facts than those in *The Republic*, they represent a combination of selected Spartan and Athenian elements rather than an imitation of either. The common meals, the education of both sexes, the public character of the schooling, the close supervision of private life, are Spartan; the literary elements, the philosophy underlying the curriculum, the festive character of the training, the extensive training in the choruses, and other features of like sort are Athenian. While in permanent value of the ideas elaborated *The Laws* cannot compare with *The Republic*, its historic elements are of somewhat greater importance.

The Permanent Value of Plato's educational theories is to be found in the principles formulated. From his theory of ideas and his theory of the good, as the approximation of the phenomenal existence to the reality of the idea, Plato develops in *The Republic* the fundamental ethical principle that each individual should devote his life to doing that which by nature he is most fitted to do, — that is, to accomplishing his own particular good in life; for thus he will attain to that which is the highest for himself and accomplish the most for society. There follows from this the fundamental pedagogical principle that it is the function of education, as controlled by the philosophers, to determine what is the particular good, the worth, of each individual, — what each individual is most fitted by nature to do, — and then to prepare him for this service. While it must be admitted that this solution is but a formal one, yet any practical solution is determined largely by a previous formal solution. The value of a formal solution which will give an ideal to work toward is clearly indicated by the chaotic condition of our educational practice of to-day, which possesses neither formal ideal nor unified practice.

The Republic was Plato's answer to the problem of the new Greek education. A state is constructed wherein one may find the embodiment of his own reason; through which one may work out the highest good as determined by his own nature; and in which therefore one may secure the widest freedom for the expression of his own individuality. Since the fullest possible scope was given for development, such limitations as there are exist by reason of the limitations natural to the personality of each.

While the scheme is Utopian, the idea is not. An education such as this, that will give to each the highest attainable and in this highest attainable will of necessity give him the widest liberty, provides for the development of free men, each in his particular sphere in life. With each bound down by no utility save the use of his own powers in the fullest ex-

pression of his own personality, and consequently for the highest service of his fellow-man, we find here the first conscious explanation of the Greek educational ideal and the first exposition of the idea of a liberal education. However the content of such an education may vary from age to age, this is the ideal to which subsequent generations ever return, — the ideal of an education that will produce the free man.

The absolutely free man is the philosopher, — the one alone who knows and can appreciate the truth, the one who can with profit devote his life to the contemplation of eternal truth, the one to whom the guidance of society should be given. The dialectic of Plato includes philosophical truth, moral truth, religious truth. With Plato Greek life "advances from the love of what is sensibly beautiful to the love of what is morally beautiful." Plato discusses these truths and through his ideal scheme of education seeks to hand them on to others. However deficient his scheme may be in adaptability to existing conditions, he at least strikes the Greek harmony of the medium, for the ideals of life and education of *The Republic* avoid the selfish surrender to the demands of the practical life that characterized the sophist teaching, and the equally selfish withdrawal from its studies that characterized the later intellectual life of the philosophical schools, even of that which bore Plato's own name. It is in this significance of the term knowledge that Plato held with Christ, that "ye shall know the truth, and the truth shall make you free."

Plato is far beyond the ideas of his own and of subsequent times in one respect, that alone would make his ideal scheme noteworthy. This is in regard to the education of women. Speaking of the administration of the ideal state, which to him includes all general social activities, he enunciates this general principle underlying all his educational scheme: "Neither a woman as a woman, nor a man as a man has any special function, but the gifts of nature are equally diffused

in both sexes; all the pursuits of man are the pursuits of woman also, and in all of them a woman is only a weaker man." So far as women have the same qualities of character they are to be educated and to be adapted to services in society as men are. The education of women is to be settled on the same principles as that of men and to include the same subjects, however much it may differ in detail. The differences lie in the difference in character, not in the difference of sex: "a man and a woman, when they both have the soul of a physician, may be said to have the same nature," says Plato, and hence should have the same education. It has taken more than twenty centuries to approximate in practice the principle established in *The Republic.*

One other principle of education, fundamental to *The Republic*, must not be overlooked. *The Republic* presented no ideal scheme for mere pastime or amusement, but afforded concrete moral guidance for the youth of his times; hence in the ideal plan of education, theory and practice are ever united. Theory was but the guide to higher practice. Accepting the existing organization of elementary education, in the method of which we have seen that practice and theory were ever united, Plato provided for the same union in the two periods of higher education. In the study of the sciences — from twenty to thirty — the theoretical discipline was ever to receive test and confirmation in the performance of practical social duties. And if the period from thirty to thirty-five was to be wholly devoted to the study of philosophy, of ethics, and of religion — that is of truth — it was but a preparation for the long service of the state, which again was but a training or discipline of a practical character. Again, though at fifty the philosopher was to be exempted from these routine duties and to devote himself anew to the study of the truth, even yet as counselor and judge he was to unite practical duties with theoretical interests and intellectual pursuits. In truth, with Plato, as is to

be seen more clearly with Aristotle, the theoretical never had that connotation of remoteness from life possessed by the term in its modern use.

Theoretical knowledge is that knowledge of the highest good, necessary as a guide to the practical good. As the hunter turns over the captured game to the cook, as the general hands over the captured city to the statesman, so the philosopher hands over theoretical knowledge to the craftsman or the ordinary citizen as a guide to successful conduct in regard to any interest in life. The most abstract of all pursuits, the study of dialectic, is after all most closely united with the practical life; for in one is determined those "goods" that are to be practiced in the other. Without such a constant interaction of "theory" and "practice," the one cannot be true nor the other good. Thus is made conscious in Plato, and later in Aristotle, that which is latent in the old Greek practice, — that which has become one of the most vitalizing ideas in present educational work, — namely, the union of thought and action, of learning and doing, of the reflective and the constructive processes. "The best kind of knowledge — the knowledge of what makes life worth living — cannot be won except by a mind and character trained and matured in the school of life; and again, no good work can be done in the arena of practice unless inspired by the highest spirit of study, — the vital enthusiasm for truth and reality."

The Practical Defects in the Platonic scheme are readily seen and easily condemned, though such condemnation is aside from the real point of value. The extreme aristocratic sentiment which inspires both, whether it is the aristocracy of intellect of *The Republic* or the theocratic aristocracy of *The Laws*, puts both works out of sympathy with existing life, and makes them distasteful to modern thought. The pronounced socialistic character of both schemes, which gave to the state absolute control of the whole life of man, shows a lack of

appreciation of the achievements of that life of a free democracy that made possible the very works of Plato himself. The provincialism of those ideal states, as well as the narrow life prescribed for the citizens therein, is again contrary to the dawning conviction as well as growing tendency in Greek life that led to the formation of a cosmopolitan society, broad in its sympathies and great in its intellectual achievements. The realization of these tendencies soon rendered these views of Plato, narrow in these subjects, antiquated and devoid of influence. In his views on slavery, child exposure, the status of the industrial class, there is no advance beyond the degrading views and practices of the Greeks. Though a higher position is assigned to women, especially in regard to education, the family, as at Sparta, is wholly subjected to the control of the state for the rearing of children. While ostensibly a scheme for the development and protection of individualism, in some respects and at some points there are strange limitations on the rights of the individual. In *The Laws* this reactionary tendency is so extreme that even the liberty of opinion is restricted, and those who do not conform to the doctrines of the law given are punishable with imprisonment.

The great practical defect of all the educational theorists, more potent with Plato because evident in his theory, was that they did not actually introduce or lead their pupils into the practical life. This is true despite the fact previously noted, that the Platonic conception of "theory" was never separated from practice. Knowledge is virtue, taught Socrates, but he did not show how one who possessed knowledge would be led *irresistibly* to do the right act. Plato taught that, after their perfection in philosophy, the philosophical class should govern society; but he did not indicate *how*, otherwise than through the possession of truth, philosophers could be led to devote themselves to a life of practical service. That in the school of his own followers they were not led to do so, but, on the contrary, developed into

the most exclusive life, is evidence of the insufficiency of his teachings on this vital point. In his wonderful allegory of the cave (*The Republic*, Bk. VII, 514–518) those who have groped their way out of the darkness and have gradually come to see the world as it is, return into the cave to lead out their fellow-mortals or to make their life in the cave more endurable; but there is no indication whatever concerning *how* this is to be brought about. There remains both in theory and practice this unbridged gap between the philosopher's possession of knowledge and the practical life of a citizen. Even though, as has been seen, the Socratic and Platonic knowledge was, in its highest form, a knowledge of the good, yet it was knowledge intellectually, not emotionally, apprehended. There is no provision in his thought for the development of the motive, the good will, — aside from growth in the possession of knowledge. The defect is not that there is a failure in the ideal scheme to unite theory and practice, for, as has been seen, this was constantly done; but rather that the actual education of the Athenian youth was an intellectual rather than a moral process, and that in the ideal scheme for the education of a philosophical class the emotional or volitional, as opposed to the intellectual basis of the moral life, was not considered.

The Practical Influence of these two educational dialogues, *The Republic* and *The Laws*, is indirect and remote. Save in the formation of philosophical schools, to be mentioned later, their immediate influence was very slight. In the study of ideas, as provided for in the higher training of the philosophers, there was formulated a wholly new intellectual interest in life, which, with the fusion of the Christian faith and the Greek philosophy, was to give to subsequent centuries their chief subject of intellectual interest, — the study of dialectic. In the distinction between the rhetorical and grammatical study of literature of the early education and the scientific studies of mathematics, astronomy, and music (or acoustics),

there lies the basis of differentiation between the trivium and quadrivium which together were to constitute the curriculum of at least ten mediæval centuries. In the character of the study of mathematics and the sciences for idealistic rather than for practical purposes and in the drawing of this very distinction, is found the basis for the *disciplinary* conception of education as later worked out by the Schoolmen of the Middle Ages. The practical value of these subjects is discarded as of secondary importance. Only as they are serviceable in developing this sense of the contemplation of the good, do they possess high educational value. Arithmetic is "a study which leads naturally to reflection, and is of the kind we have been seeking," says Plato in his search for the proper subjects of study, "but has never been rightfully used; for it really is of use in drawing us toward being." Again he says, "Arithmetic has a very great and elevating effect, compelling the soul to reason about abstract number, and rebelling against the introduction of visible or tangible objects into the argument." Herein is to be found the distinction which in later generations is to be used as the basis of a conception of education very different from that formulated by Plato (Chapter IX).

The scheme for the education of the philosopher during the five-year period when he was to withdraw entirely from practical life in the contemplation of the good, and of the period in life following actual service, which, as a life of uninterrupted contemplation and intellectual satisfaction, was held up as the highest life, was responsible for one other profound social result. Without question the general practical effect of *The Republic* was to emphasize the life of calm repose, of philosophical inquiry, of intellectual activity as the highest type of life. Contemptuous of the interests of the industrial life, indifferent to the practical claims of society, callous to the old religious influences, the philosopher of post-Platonic times withdrew from all to pursue a life of

reflection, of intellectual activity, and æsthetic enjoyment, but withal a life as selfish and individualistic as that of the most indifferent citizen or scoffing sophist. Such was the ideal of the tendency which the work of Plato encouraged, though he was trying to point the way out of the maze. Even before the dawn of the Christian era there were many who had come to look upon such a life as possessing religious and moral merit. To this tendency was added an element of Oriental asceticism which considered that the sacrifice entailed in the withdrawal from social intercourse, the rigid control of the appetite, the absence of the ordinary comforts of life, and the endurance of physical pain possessed peculiar moral efficacy. In this way the Platonic philosophy entered with Oriental asceticism into the foundation of Christian monasticism.

In yet one other respect Platonism reacted practically upon the life of subsequent generations. By making it apparent that there was a life of high aspiration and endeavor separable from and higher than citizenship, the way was prepared for the establishment of the Christian Church. Even in *The Republic* the philosophers were, so to speak, outside the ranks of citizenship and exercised their control from without by despotic authority. In reality the philosophers of the Platonic group had little or no interest in public affairs. With the organization of these and similar groups of philosophers into schools, an institution extra-state, even extra-social, was formed; while membership in these came to be looked upon not only as permissible but in the highest degree worthy. When the Christian religion was introduced as but another one of these schools holding peculiar doctrines, following ideals of conduct sharply differentiated from ordinary social customs, and considering the type of life represented by it as greatly superior to the life of the ordinary citizen, it found the way well prepared both in theory and in actual practice by Plato and his followers.

Aristotle (384–322 B.C.), as the one of these educational

theorists that had the greatest influence upon subsequent times, the one who in his breadth of interests and activities more nearly approximated modern times, and who by common consent bears the reputation of the best-educated man of any age, deserves the fullest consideration. And yet, since much that has been said of Plato is also true of Aristotle, this account may be abbreviated without loss of comprehensiveness by comparison of Aristotle with his master, Plato, and with Socrates.

Advance beyond the Idea of Plato. — In one fundamental point the two great philosophers were in agreement; each taught that the highest of all arts that man can aspire to possess, is that of Politics — the art of so directing society as to produce the greatest good for mankind. The success of the outcome of the art of the statesman depends upon having the proper material to deal with: consequently the first interest of the statesman is to provide a properly equipped and properly disposed group of citizens.

The production of such a citizen body is the work of education, which thus becomes the immediate object of the statesman and a most important part of the science of politics. This position accounts for the very favorable opinion which both Plato and Aristotle held of the Spartan and Cretan education, for they felt that these two states alone recognized the full political importance of education and made of it a component part of statecraft. At the same time Aristotle is most insistent in indicating his opposition to both the ends and the means of Dorian education. With both philosophers the treatment of education forms but a portion of their works upon politics. One other point of agreement follows as a corollary from the previous principle. If education is the preparation of the citizen for the good life (and according to both men the best in life is not obtained until after the practical training in the actual service of the state); if, as both held, this highest good is to be reached only through this service, which develops

both the appreciation for and the ability to use the still higher goods of life — if these things be true, it follows that education is a life process wherein each particular stage has its appropriate good and its immediate end, and also wherein the ultimate goal is a life of intellectual activity and enjoyment made possible by the performance of the lesser duties in life.

While Plato sketched such a life in his ideal scheme in a dialogue wherein the literary form is most important and the scientific formulation of principles is lacking, Aristotle, on the other hand, has left us the logical exposition of these scientific principles in the form of lectures delivered to his students, which, however, lack the literary charm of the dialogues and which unfortunately do not include the formulation of his perfected educational system.

Formulation of the Ideal. — The solution offered by Aristotle of the conflict between individual interests and social welfare, his formulation of the highest good in life and consequently of the aim in education, is quite different from that of Plato. Plato found this solution in the gradual acquirement of ideas that possessed independent existence, — a possession which in the individual constituted virtue. To Aristotle, ideas had no independent reality, but existed only as forms, embodied in objects and giving them individuality and existence. This ultimate good, which Plato sought in the consciousness of the individual, Aristotle sought in the consciousness of the race. To him the formal goal for which every individual strove, the object of the state, the bond in life between the individual and his fellows, was *happiness*. So fundamental is this distinction that it demands some further elucidation.

Aristotle made an advance beyond Plato through his clearer psychological analysis, in that he discriminated more clearly between the intellectual and the volitional activities of the mind. Virtue consisted not in knowledge — that is wise insight — but in a state of the will. A state of the will is not

so much a condition as it is a process; hence goodness, the highest end attainable by man, is not a condition but an activity. Since they indicate in the clearest manner both his agreement with and his divergence from the solution given by Plato, Aristotle's own words deserve space here: "Now our definition is in harmony with those (the Platonists) who say that happiness is goodness or some form of goodness; for activity according to goodness implies goodness. Yet there is, I take it, no small difference between the conception of the highest good as a possession, and that of the highest good as in use; between the conception of it as a condition, and the conception of it as an activity."

The idea of Plato existed only as form; Aristotle, on the other hand, dealt ever with concrete embodiments of ideas, with the facts of nature, of history, or of the soul of man. Reality with Aristotle consisted in the accomplishment of its end, by any given object, entity, or fact; in the performance of its appropriate or highest function: hence reality is activity, or performance of function, or a "becoming," whether it be a phenomenon of nature (physical), or of man (social). In regard to man these doctrines that possess the chief significance for us in their educational connection, are worked out fully in *The Ethics*.

"The function of man, then, is an activity of the soul of a rational, or at least not of an irrational, character." The *good* for man is defined as "an activity of the soul according to goodness; and, if there are more kinds of goodness than one, in accordance with that which is best and most complete." Later goodness is defined as being of two kinds, "goodness of intellect and goodness of character." The first of these is produced and increased by teaching and is the product of experience and time; goodness of character is the outcome of habit. As nature does not give to some or withhold from some goodness of character, it renders each of us capable of attaining or receiving this goodness by forma-

tion of habit. Goodness consists, then, in *well being* and *well doing*. *Well being* is the goodness of the intellect, connected closely with the possession of universal truth of the Platonic school and providing for the development and the welfare of the individual; *well doing* is the goodness of action, acquired through habituation and represents the social aspect of the ideal. Virtue does not consist in mere knowledge of the good; but in the functioning of this knowledge, — of ideas or principles. In this respect Aristotle, while a foreigner to Athens, represents more truly than Plato the common attitude of the Greeks, mentioned previously, in considering goodness as some form of efficiency or excellency, as some superiority in conduct rather than in a state of mind.

Happiness is the result of such activity, of such functioning of ideas, in actual life. Happiness is defined in *The Ethics* as "the conscious activity of the highest part of man according to the law of his own excellence, not unaccompanied by adequate external conditions." Here again are found both individual and social elements. The highest part of man is reason: by this he is distinguished from all other animals. Consequently his goodness consists in the functioning of reason, — in the accomplishment of his highest end, — the control of life by reason. This gives the "well-being" side. The greater part of *The Ethics* is devoted to a discussion of the other question; namely, "What is the law of man's own excellence?" This, in brief, is found to be in his political or social nature; "Man is by nature a political animal." Consequently man's highest excellence, his goodness, is again found to be the putting into operation, in his life with his fellows, of these ideas or principles of conduct of universal validity. Virtue and happiness consist in this life of action; thus the well-doing side, or goodness of character, is provided for.

One further Aristotelian distinction must here be made, in

order that one may understand his conception of highest goodness and happiness. The distinction is that between the theoretical activities, — those that have their end in the activity itself, — and the practical activities, those that have their end in some product beyond the activity itself. The same distinction holds in regard to science: the science of surveying is a practical science having its object or "end" in the accomplishment of some external service; the science of geometry is theoretical, since the end of such a study is found in the demonstration of the proposition, — in the activity itself. Now of all practical sciences, that of politics is highest, for it is the practical science of the good life. There is, however, a higher theoretical science, — that of the intellectual life, wherein the object is the good life, the life of reason. This life is good in itself. As war is for the purpose of peace, business for the purpose of leisure, so the political life is after all for the sake of the "speculative," that is, the intellectual life. This is the highest excellence of man and the highest type of life, and is to be reached through the practical life. So "the activity of God, which excels all others in blessedness, will be speculative, and accordingly that activity which is most akin to it will be the happiest. And it is a proof of this that the lower animals have no capacity for speculation, cannot attain to happiness. . . . It follows then that happiness is coextensive with speculation (*i.e.* with intellectual activity) and that those who have the greatest power of speculation will be happiest, not accidentally, but by virtue of their speculation; for speculation (intellectual activity) is valuable in itself."

It is evident from this use of the term speculation that it does not have the connotation of unreality associated with our use of the term, for it is the highest reality; nor, on the other hand, does it indicate exactly the life of contemplation, certainly not that of isolation into which the Platonic ideal developed. This life of intellectual activity has a *well-doing*

as well as the *well being* side. The scientist, the poet, the theologian, the literary writer, the student of whatsoever field who has been prepared for his vocation by actual experience in life, leads the life of the Aristotelian speculation. In this principle again we arrive at the Greek idea of a liberal education — the training for a life which is an ultimate good and, withal, in itself the highest end, — the life of intellectual activity, which constitutes the highest virtue and produces the greatest happiness.

In the formulation of this ideal Aristotle avoids the great difficulty that Plato experienced in uniting theory and practice. Whereas Plato merely in his description of an ideal education indicates that the theoretical and the practical are never to be separated, but omits to give a philosophical basis for this union and fails to check the tendency, even among his own followers, to neglect their obligations to society, Aristotle unites the two in his conception of the two-fold nature of virtue and happiness. In the conclusion of *The Ethics*, here quoted, he clearly states that with the formulation of the theory, the task is only half accomplished.

"Now if arguments and theories were able by themselves to make people good, they would, in the words of Theognis, be entitled to receive high and great rewards, and it is with theories that we should have to provide ourselves. But the truth apparently is that, though they are strong enough to encourage and stimulate young men of liberal minds, though they are able to inspire with goodness a character that is naturally noble and sincerely loves the beautiful, they are incapable of converting the mass of men to goodness and beauty of character."

Since this is true, and since what nature has done for the character of the individual is beyond man's control, all that can be done is to train the individual through the formation of habit. Then, when good habits have been formed and a good nature has been discovered, this work in training can

be completed by the work of instruction in theory. All this is the work of education. Hence the treatment of the general problems in *The Ethics* leads to the discussion of the practical means in *The Politics*, which, like *The Republic*, is a treatise on education in its broadest sense. Prior to an examination of Aristotle's scheme of education, one further comparison with the previous development of Greek thought demands attention.

The Method of Education. — In brief, the method of Aristotle is objective and scientific, as opposed to the philosophical or introspective method of Plato. Plato seeks truth through the direct vision of reason, and seeks the confirmation of reason only in the consciousness of man. Aristotle seeks truth primarily in the objective facts of nature, of social life, and in the soul of man, and seeks confirmation primarily in the historic consciousness of the race. Consequently there is a constant reference to what "the many" or what "the wise" have thought, and an examination of the greatest diversity of views, of historic facts, and of tradition and custom.

To Aristotle, the dialectic method of Plato, which sought truth in the supersensuous region of mind, produced truth of only formal value; he, on the contrary, sought for truth in the experience of the race and developed as his method the inductive process. This he applied both objectively and subjectively. The Socratic dialectic had made only the latter application. Only after he had found the general meaning of his terms and of his facts in the general consciousness of mankind, did Aristotle seek for confirmation by the introspective process. Though the inductive and deductive processes of reason had been distinguished, and of course as modes of thought had been coextensive in their history with the history of the human race, with Aristotle they became conscious procedures; for he it was that first formulated the logic of each. "There is one point," he says in

his attempt to get at the meaning of the terms we have been explaining, in his adoption of the inductive method, "as to which we must be clear, the difference between reasoning down from first principles and reasoning up to first principles. Plato used to raise the question quite rightly, and to ask whether, in a given case, the way lay from first principles or to first principles, as in the race-course from the judges to the extremity of the course or in the opposite direction."

Not only more widely than any man previous to his times, but also more widely than any man in subsequent ages, Aristotle used this inductive process. Consequently, since he applied it in the formulation of his philosophical system to all previous systems of Greek thought, he represents the culmination of the Greek intellectual life; and, on the other hand, since he applied it most extensively to wholly new fields of investigation, he became the father of practically all of the modern sciences.

The Scheme of Education in The Politics.— To return to the topic of the means for realizing this life of well being and well doing. In *The Politics*, where he is discussing the nature and the elements of permanency in constitutions, the relation of education to politics is thus stated: "Of all things which I have mentioned that which contributes most to the permanence of constitutions is the adaptation of education to the form of government." In *The Ethics* he approaches the subject as follows: "We laid it down that the end of Politics is the highest good; and there is nothing that this science takes so much pains with as producing a certain character in the citizens, that is, making them good and able to do fine actions." Now man possesses both body and soul; and the soul is composed of both rational and irrational parts. Hence, the ideal education must consist, first, of education for the body — gymnastics; second, education for the irrational part of the soul, that is, the desires, passions, and appetites, consisting of music and literature or the moral

education; third, the education of the rational part of the soul, through the sciences and philosophy. The first two constitute the practical education and hence are not ends in themselves, but rather means to the highest end, — the life of reason. Herein lies the basis of his criticism of Spartan education. Previously he has praised the Spartan above all other forms of Grecian education in that the state makes the development of its citizens to a predetermined end a conscious aim. But because Sparta limited education to this training of the body and in practical reason to the exclusion of that which forms an end in itself, namely, the life of intellectual activity, it is to be condemned.

Since the exposition was either not completed or has not come down to us, the detailed treatment of these three aspects of education in *The Politics* is a fragmentary one. Concerning the early care of children and the later gymnastic training he has many practical suggestions to offer and many criticisms on the established custom, especially the Spartan, which after all he is inclined to favor. The education of the body must precede instruction. Care of the morals of children should be in the hands of the government and of the parents, and not in the hands of slaves. Gymnastic training should aim at developing good habits, and control of the passions and appetites; it should not aim at mere superiority in athletics nor at the development of the roughness and ferocity of soldiers. The two phases of education should not go on together, "for the two kinds of labor are opposed to one another, the labor of the body impedes the mind, and the labor of the mind the body."

In the second or moral phase of education the traditional subjects of music and literature are accepted as the appropriate means. Aristotle takes a much broader view of literature than does Plato, and approves of the use of the poets. In another work, he formulates the philosophy underlying its use into a new science, that of æsthetics, which ever since

has built upon this work of Aristotle as a foundation. Music is approved for these reasons: it is, first, an amusement or form of relaxation; second, it is a form of intellectual enjoyment, in the same sense as that employed by Plato; last and most important of all, it possesses a moral value. Here is advanced that idea of "purgation" which is further developed in other connections, and gives the conscious explanation of the use of music by the Greeks as the chief means of moral education. "Rhythm and melody supply imitations of anger and gentleness, and also of courage and temperance, and of virtues and vices in general, which hardly fall short of actual affections, as we know from our own experience, for in listening to such changes our souls undergo a change." This habit of feeling pleasure or pain at this musical representation of good or evil is not far removed from the same feelings about the realities of good and bad in conduct. In this manner music, beyond all other forms of expression which appeal to us through the senses, has the power of forming character in us by "purging" the mind of evil and strengthening the good in us; for "there seems to be in us a sort of affinity to harmonies and rhythms, which makes some philosophers say that the soul is harmony, others, that it possesses harmony."

All citizens are to share in this education alike, though slaves and artisans cannot attain to citizenship and hence not to the good life, since "it is not possible to care for the things of virtue while living the life of the artisan or the slave." With regard to the education of women Aristotle did not agree with Plato, as (basing his argument upon a comparative study of the sexes in lower animals) he held that woman was essentially different from man in nature, and hence that the former cannot profit by this higher education to be given citizens.

The details of this higher education, that of the rational part of the soul, — the one phase of education which was

an end in itself and constituted the good for all the rest, — are not given. The treatise ends here abruptly, and that subject upon which above all others Aristotle could have thrown light, is left with mention only. From his other discussions, however, we know that this higher education would contain a large element of mathematics, — especially of geometry, because of its training in deductive reasoning, — and also of the mathematical sciences, physics and astronomy. From Aristotle's own example we may presume that it would include the natural sciences and, above all, dialectic, including both the philosophical and the logical studies so thoroughly developed in his own school.

Following this "speculative" education, or rather along with it, comes the practical education in citizenship. This includes two types of activities, the practical or executive, and the theoretical or legislative and judicial. The citizen develops from the former into the latter, and comes to devote more and more of life to purely intellectual pursuits. Finally, those best acquainted with divine things enter the priesthood. Thus gradually the practical life passes into the "speculative," and the lesser goods are developed into the highest good of all, — the life good in itself.

Practical Influence of Aristotle. — It was no figure of speech that Dante used when he termed Aristotle "the master of those who know." The one reason why Aristotle and Plato also deserve so extended a mention in an outline of the history of education which purports to be an account of facts and not of the theories of a few individuals is not because of the extent or even the peculiar character of their writings, but because of the actual influence these writings have had upon subsequent times. In later chapters, on the Middle Ages, on the Renaissance, on the origin of modern science, the subject of Aristotle's influence must again arise; hence a brief mention of the main outlines of his influence will here suffice.

Aristotle was the first great scientist — the greatest systematizer, in fact, that the world has ever known. As Plato was the great philosopher and initiated the lines of inquiry which yet constitute the chief questions in every branch of metaphysics and of ethics, so Aristotle sought to give to all subjects of inquiry, even those of metaphysics and ethics, a scientific form. Not content, however, with giving scientific form to other lines of inquiry, he organized as fundamental to all, the science of the form of thought. For fourteen hundred years after the opening of the Christian era, — indeed the period might be extended to include the century of the Reformation itself, — no book, save the Bible, had any such influence as the *Organon* of Aristotle. This work includes, first, the *Prior Analytics*, a treatise on the syllogism or on the elements of reasoning of all kinds; second, the *Posterior Analytics*, or the logic of the deductive sciences; and, third, the *Topics*, or the art of discussing subjects where demonstration is impossible. To these divisions of the formal science which underlies all science, subsequent times have added little or nothing, so thorough was the work of the master. Concerning the art of inductive reasoning, which Aristotle himself practiced so successfully and for the first time consciously, he wrote little, and that little was lost to all the Middle Ages. So it happened that the first great master of inductive reasoning fastened upon the human race for a thousand years a type of intellectual life that was purely deductive in character, and hence non-progressive. Dialectic, or the conscious process of reasoning, either for the discovery of truth or for mere victory over an opponent, which first became conscious with the sophists, which was given a moral bent by Socrates and a universal application by Plato, was by Aristotle given universal form and universal influence.

So fundamental was Aristotle's influence in these respects that the scientific thinker as well as the person in everyday

life is indebted to him for many of the most expressive terms in language. Such words as *end*, indicating the final purpose or cause, the term *final cause* to indicate end in this sense, the word *form*, the word *matter* and *subject-matter* as we use it in education (from the term indicating the timber which the carpenter uses), such words as *principle*, *maxim*, *motive*, *faculty*, *energy*, *habit*, *category*, *mean*, and *extreme* are all the results of his efforts to systematize knowledge.

Even more important than words are the very subjects of study, or branches of knowledge which Aristotle first organized. Through the partial formulation of the inductive method and the application of thought to new phases of reality, almost wholly neglected before his times, he became the originator of many modern sciences. Among those upon which he wrote treatises are *physiology*, *mechanics*, *natural philosophy*, or *physics* in its broader principles, and the corresponding biologic science, *natural history*.

Universally recognized as the strongest of the ancients, down to the time of the fifteenth-century Renaissance Aristotle's name was supreme. Through scholasticism (Ch. IV, Sec. 4) his work became the basis of all studies, and of all educational institutions during the Middle Ages. In fact it might be said that during those ages, all secular writings, save a few by this one man or such works as were based directly upon his, dropped out of human interests.

His immediate influence in Greece was not so fundamental. His school of adherents, the Peripatetics, did not rise to his standard, made little or no use of induction, and spent their time in writing commentaries or fruitless interpretations and adaptations, mostly upon isolated topics. The writings of the master were carried to Asia Minor (287) where for nearly two hundred years they were lost; when finally recovered they found their way to the Alexandrian library and later to Rome. Through translations into Arabic the knowledge of Aristotle was kept alive among the

Saracens at Bagdad, and later throughout their empire, and by them was carried into Spain. Thence as well as from the East the Saracen learning revived and purified the European interest in and knowledge of the master during the early university period.

THE COSMOPOLITAN PERIOD OF GREEK EDUCATION.

General Characteristics. — During this period the tendencies of the transitional period become permanently fixed. The influence of all the philosophical teachers had in practice but strengthened the emphasis upon the life of retirement from public duties and social activities as the ideal of highest development. If the intellectual life is held to be free from control of general standards of social obligation, or at least is held to be of greater worth, why should not the standard of the practical life be determined by the individual himself? Thus the tendency toward individualism is confirmed by the very forces that attempt to check the growing evil. Consequently there is no development of educational ideals or standards. Theoretically there is none possible beyond that of Plato and Aristotle; practically no formulation of general standards or ideas could take place at all. Philosophy ceases to be the attempt to discover truth and becomes but an exposition of doctrine. Not "What is so?" but "What saith the master?" is ever the test. It is not so much a body of ethical or metaphysical principles that holds the disciples together into a school, but rather the study of a common subject-matter.

Two educational features characterize this period: the one, the conquest of the civilized world by Greek ideas and Greek culture; the other, the formation of definite types of educational institutions.

Spread of Greek Culture. — As Aristotle through his philosophy summed up all the intellectual life of the past,

and through his method laid the basis for all intellectual life of the future, so through his great pupil, Alexander the Great, he spread the culture of Greece throughout the known world It was through the power of mind, though unconscious, that Greece in an earlier day had driven off the hordes of Asia now through the power of mind, consciously developed and applied, she returned to make captive her would-be conqueror, as still later she enthralled by the same power her Roman master. Through genius of administration Alexander made his preliminary conquest: through the Greek culture he aimed to make it permanent. Though his successors furthered his plans, one alone, Ptolemy, carried them out to the full. Within a century after Alexander the habits and customs of all of the East, — even of the ever reserved Jews, — were colored by those of the Greeks. Oriental peoples produced Greek philosophers; Greek philosophers in turn accepted in essence the Hebrew religion, or later the Christian faith. Greek schools, Greek theaters, Greek baths, Greek institutions of every type were to be found in every city in the East. At the time of the Mohammedan conquest, after almost a thousand years of vicissitudes, the city founded to bear the name of the conqueror possessed 400 theaters, 4000 palaces, 4000 baths, and a library of 700,000 volumes.

Through the work of the Greeks during this period, learning became, as it remains now, universal; it was the possession of no peculiar people, and became independent of time and place. As learning took upon itself this universal influence, it tended on the other hand to become individualistic in character. The philosopher tended to withdraw from interest in society; the individual, to find the highest ends in life in states of consciousness rather than in forms of social activity. Ethics, the philosophy of the moral life, gradually disassociated itself from the life of political activity and related itself under the Oriental, especially Jewish, influence with the religious life. As a consequence both the

intellectual life and the religious life tended to disassociate themselves from the state and to connect themselves with one another. There results a cosmopolitan tendency in the intellectual life, a humanitarian tendency in customs and morals, and one toward the multiplication and toleration of sects distinguished by theological or metaphysical differences. Through the gradual acceptance of the Christian religion and its modification by Greek thought, and the universal social or institutional structure added by the Roman people, the composite civilization of mediæval and modern times was produced as the outcome of this cosmopolitan era.

The Rhetorical and Dialectic Schools. — In the early days of the sophists, a movement toward the formation of two distinct groups of teachers became evident: the one sought to prepare pupils for direct participation in public life by a training in the art of speaking; the other afforded a training in argumentative power in speculative questions of metaphysical or ethical import usually debated in private. In the latter half of the fourth century this movement resulted in the formation of two distinct types of school. Of these, the rhetorical schools were the most distinct, the most numerous, and the most influential practically. The work of the sophists had given scientific shape to the study of grammar and of rhetoric. To this work Plato and Aristotle, especially in his philosophical treatise on rhetoric, contributed. With the formulation of the science of logic by Aristotle, a third of these studies became organized. This study of the structure and arrangement of thought was pursued from two points of view: when followed with a view to determining the probable truth, it was termed *dialectic;* when followed with a view to gaining the victory over an opponent, it was termed *eristic.* Naturally it was the latter that had a place in the rhetorical schools, which aimed to give this practical power of overcoming an opponent, and for the most part was a direct prepa-

ration for the law courts before which any Athenian citizen might be called to present or defend his own case. The work of these schools, which became very numerous both at Athens and throughout Greece, was to carry on the study of these formal subjects, just then being organized; or, taking for granted that general culture had been acquired in the lower schools, to train more technically in the effective expression of thought. While the work of these rhetorical teachers was formal, it was not necessarily superficial, as was charged against the work of their progenitors, the sophists, but for the most part consisted in the study of the choice and sequence of words and the effective arrangement of thought, together with a drill in argumentation and forensic presentation.

To us such an aim seems narrow; but this power of effective utterance was to them, as the use of grammatical English is now, at once the test of an education and an indication of a higher culture than that contained in the mere unstudied use of words. Such a scope for the activities of an educated man seems to us to be very limited; but it must be recalled that public oratory then performed the function that is now divided between the press, the pulpit, the bar, and the university.

As Socrates formed the transition from the sophists to the philosophical schools, so Isocrates (393–338 B.C.) represented the transition from these latter to the rhetorical schools. There were undoubtedly many of these schools before his time, but with him the transition from the teaching methods of the sophists to a distinct type of institutional work holding definite aims, was complete. He was the most distinguished and the most successful of all these rhetorical teachers, and from his school came some of the most successful men of that generation. From many points of view he is hardly to be distinguished from the sophists, among whom indeed he numbered himself; yet, in the modesty of

his promises, in the distinct announcement that he professed to be able only to improve natural talent and that he trained for public service as well as individual advantage, he differed from the typical sophists. In truth, before the close of Isocrates's life the typical sophists had been replaced by the two types of teachers under consideration. On the other hand, Isocrates was just as anxious to be distinguished from the Platonic type of philosophers, who wasted their time in discussions concerning pure being, profitless alike to themselves and to the public.

The school of Isocrates did much toward making Athens the center of the intellectual culture of the world ; for schools like his continued to offer the highest practical training not only to the Greek but to the Oriental and to the Roman for many centuries afterward. While these schools were all private, they formed a component part of the higher educational system.

The dialectic schools were in reality but the minor philosophical schools of a type similar to the great philosophical schools, and are to be considered as subordinate to them. The following description of the work of these schools will answer for this less important type as well.

The Philosophical Schools. — Plato and Aristotle gathered around themselves definite bodies of students who were recognized as disciples and who in themselves formed a "school." But so long as there was no other bond than community of ideas, such a school could not be very distinct nor permanent. Continuity and definiteness were added by a variety of circumstances. First among these was the acquisition of a local habitation, first in the public gymnasia, — Plato in the Academy, and Aristotle in the Lyceum, — and then in private grounds attached to these. Continuity was first obtained by the custom instituted by Plato and Aristotle and continued by their successors, of bequeathing the head-

ship of the school, their manuscripts and even their property to a designated disciple. These *scholarchs*, or heads of the schools, adopted the despised custom of the sophists of charging fees, which, together with bequests from students, resulted in building up a permanent endowment and also in giving definiteness to the school as an institution.

To the Academy and the Lyceum were added two others which became of even greater importance during the centuries preceding the Christian era. These were the school of Zeno, who taught in the painted porch of one of the Athenian temples, and whose disciples were hence called Stoics, and that of Epicurus, who taught in his own private grounds. As has been pointed out, the Aristotelian school through its lack of independence and the loss of its materials, soon ceased to exert much influence upon the development of thought in Greece. But the other three, possessing even a religious as well as scholastic character, developed into sects. As these formed the models for many minor philosophical schools, a further explanation of their character will be helpful in forming a general idea of the educational life of later Greece.

The attendance upon some of these schools was very large. Theophrastus, the successor to Aristotle in the headship of the Lyceum, is said to have had more than two thousand pupils at one time. The scholarchs were aided by a staff of assistants who collectively constituted the school. Lycon, the successor of Theophrastus, bequeathed the school to his assistants collectively, so it became necessary to elect a scholarch. This custom of election came in time to prevail in most of these schools. In later times, however, when these offices became salaried, the custom obtained of establishing as scholarchs imperial officers, appointed by the local council (usually after some form of examination), or by the emperor himself.

In addition to the immediate group of assistants and favorite pupils, a great number of minor teachers gathered

around these four great schools of philosophy. Besides these teachers of official capacity, there were numerous private tutors who prepared students for entrance to these higher schools, helped the younger students in their exercises, and directed them in their reading and their note work. The philosophical schools thus became the center of intellectual activity in all Greece.

The character of the work of these schools became very different from that in the time of their founders. From the very first, the scholarchs attempted to set forth the ideas of the respective founders of the schools. There was little attempt to apply the ideas of the great teachers in investigation, research, or even in discussion of new topics. Their work came to be more and more largely that of appreciation and comment. Platonism, Stoicism, and Epicureanism adapted themselves to phases of Roman ideals of life. But not only did the Lyceum fail to develop new doctrine; it did not succeed in keeping alive the old. For the most part the work of these schools, though directed toward a different object, became as formal and artificial as the work of the sophists. In all there grew up a reverence for the written word that had great influence, literary and religious as well as educational. Educationally this formalism was a distinct decline.

Along the lines of these greater schools there developed many minor ones, for the most part connected with some religious cult, as well as with an educational training. The principles of the new Greek education had taken firm hold, as these were but the embodiment of the new ideas. The principle of individuality of the sophists was now triumphant in practice, even in the philosophical schools; for they taught no longer the universal systems of their founders, but were interested only in particular aspects of the subject and emphasized only some phases of the ideas of their masters.

Philosophy is no longer dominated by political or ethical

interests; in time, not even by scientific interests. All is approached from the individualistic point of view. As the individual had previously freed himself from the state and from society, so now he seeks the same freedom from any universal philosophy. In the remnants of the great philosophical schools, as in the many minor schools, the ideas of the super-civic excellence of man and of the superiority of the intellectual and contemplative above the social and practical life, find a basis. With ideals of life which hold them together as no Greek political organization can any more; with opportunity for personal development and for the attainment of happiness that Greek civic life no longer offers; with rites of initiation; with a specific training for adherents; often with secret doctrines to be carefully guarded; with great, often absolute, control over disciples — these schools offer to the Greek of this later period a substitute for patriotism, for religion, for education, such as was furnished in early days by the one comprehensive institution, the city state. And through these new institutions, with power of propagation and multiplication, Greek ideas are spread throughout the Mediterranean world.

The University of Athens was an outgrowth of these philosophical schools, which it in time included, and of the modified character of the institutional organization of the education of the ephebes. During the period of the formation of the philosophical schools radical changes were occurring in this important stage of the old education. We have already seen that as an important phase of the transitional period the education of the youth at this age became more largely intellectual than physical. In time the compulsory provision was reduced from two years to one and after the Macedonian conquest made wholly voluntary. A change of even more radical character that shortly followed, was the admission of foreign-born students to the ephebic corps. Under the Roman régime

the foreign body, drawn mostly from Rome and Italy but also from Greek colonies and Oriental peoples, became quite as numerous as the native. The year of study now required of the youth under state control was for the most part merely introductory to a much longer period of study. Formal military exercises were kept up, at least those in the way of celebration of ancient victories and the ceremonial visits to localities possessing great historic interest. The ephebic corps was under the control of a rector elected annually by the Senate and Assembly of Athens. This officer had charge of the conduct of the boys and supervised their attendance upon the lectures of the leading philosophical schools. There is evidence, however, that this attendance did not extend to the Epicurean school, but only to the other three.

Corresponding changes of importance occurred in the philosophical schools and contributed to the establishment of one unified institution. The military operations of Philip II of Macedon (200 B.C.) and the later devastations of Roman generals resulted in injury, if not destruction, of the gymnasia in the suburbs. These schools then followed the Stoics into the city, where they were conducted in private theaters and in public gymnasia, especially those of Ptolemy and later of Hadrian.

With the growth of the requirement that the ephebes attend these schools, a further change occurred. The council or assembly of citizens came to exercise control over the selection of the heads of these schools and to support them out of the public funds. Thus grew up the custom, so foreign to early Athenian ideas, of a state-supported higher education. With the Roman emperors, during the first century of the Christian era, definite support through endowment or imperial salary was given to numerous chairs in philosophy and in rhetoric. From the time that the Athenian public gave its support, the highest professor and later all the professors in philosophy were termed sophists Evidently the term at this time had

no such connotation of reproach as it contains in more recent times. The Roman emperors, Vespasian (69–79 A.D.), who began this imperial support, Hadrian (117–128 A.D.), and the Antonines (138–180 A.D.), were especially interested in making the University of Athens the center of learning for the empire. While the professional staff was probably but ten or twelve in number, its work was supplemented by that of a large number of assistants and instructors, paid from the fees of the students, and by that of a large number of pedagogues who attended the younger and wealthier students.

Student life was now prolonged to a period from three or four to even seven years in length. The ephebic organization degenerated into one resembling student clubs or secret societies. During the early Christian centuries the university life presented many features resembling those of university life in mediæval or modern times. Among these were the wearing of a distinctive gown, the initiation into the secret societies, and the hazing of new students. So strong is the resemblance even in matters of organization and in methods of work that it is argued by many that the continuity of life, or of tradition at least, between the university at Athens and the early mediæval university, was not broken. This view, however, is not generally accepted.

As the center of classical learning and hence of pagan influence, the university aroused the opposition of the early Christian emperors and was suppressed by Justinian in 529 A.D. Long before this, however, the school had lost much of its influence, and it was only a few philosophical teachers, chiefly of the Neoplatonic school, that at the decree of the emperor fled into Persia.

The University at Alexandria was one of a number of such institutions, such as those at Rhodes and Tarsus, that sprung up in the East as a result of the spread of Greek ideas and institutions. Here under the influence of the Ptole-

mies (323–30 B.C.), who carried out the idea of their master Alexander in making this new city the center of influence, of power, of culture, and of learning in the East, there developed an institution that for many centuries outshone the parent institution at Athens. The first of the Ptolemies founded a library and instituted a search for written documents such as has never been paralleled save at the time of the Renaissance. Moreover, he founded and supported a museum, or academy, where men of letters and investigators resided at royal expense, and constituted in connection with the library an institution so like the modern university that it has been given this name. The second Ptolemy secured the library and the manuscripts of Aristotle, together with many Jewish, Egyptian, and other Oriental works. The third Ptolemy seized the original copies of many of the Greek tragedians stored at Athens. The passion for the collection of books reached such a stage that this Ptolemy, taking advantage of the wandering habits of Greek scholars, required that every visitor to Alexandria should leave behind him a copy of any manuscript that he might possess.

Not only did Alexandria possess the manuscripts of Aristotle, but here alone, of all these institutions of higher learning, the Aristotelian method of investigation was employed. To be sure, this was during only one or two brief periods and then, for the most part, in the subjects of astronomy and geography. Yet in this brief space of time much progress was made toward determining the measurement of the diameter and circumference of the earth, the distances of the sun and moon, and the precession of the equinox. Here was formulated the Ptolemaic theory of the universe, which, though wrong in its fundamental conceptions, was so near right in its methods that it served with remarkable accuracy as a basis for determining the motion of the heavenly bodies and the prediction of astronomic events. Here, too, were carried on most of the labors and here were made many of the dis-

coveries of the physicist Archimedes of Syracuse. Here Euclid perfected that branch of mathematics which bears his name. While the greatest advance was made along the lines of mathematics, yet some progress was made in the natural sciences as well. But for the most part, it must be admitted that the work at Alexandria, like that in the Grecian philosophical schools, consisted in little else than dreary comment and exposition of what the master or, more often yet, the manuscript version of the master said.

In the literary activities of the university, possessing though it did the masterpiece of Greek literature, the profitless character of the work was even more pronounced. Its characteristics were pedantic criticism, detached and puerile comment, formal imitation, attempts at a style stilted and designed for mere effect. This more than anything else marks the decadence of Greek style.

Using the word school in the sense of a somewhat indefinite center of several conflicting tendencies in thought rather than in that sense applied to the Greek philosophical schools, each held together by a definite body of doctrine, — the Alexandrian philosophical school was of later development than either the scientific or literary movement connected with the Alexandrian university. While Greek philosophical thought had always been represented there and had come in contact with Oriental philosophy and religion, it was not until near the opening of the Christian era that the development growing out of such contact became of general interest. Then began a movement headed by Philo of Judæa, toward the harmonization of Greek philosophy — especially the Platonic — and the Hebrew religion. The Scriptures were held to contain all philosophy, not explicitly but by implication. The effort followed to interpret the Scriptures, necessarily by allegorical method, so that they would harmonize, in somewhat the same manner as Greek myth had been made to harmonize with later Greek philosophical and ethical thought. Plato was held

to be but "Moses speaking Attic." Identifying the Platonic idea of a divine sense for ideas with the Hebrew idea of inspiration and the idea of a theosophical revelation to the individual thinker, there developed a type of philosophy — the Neoplatonic — that had great influence in subsequent centuries.

In a similar way Christian thought was early introduced into Alexandria, where its followers attempted a similar harmonization of Christianity with Greek philosophy that resulted in the development of Gnosticism. Here the early Christian Fathers were educated, and from these general sources, that is the north African intellectual centers, proceeded that formulation of Christian doctrine that is yet accepted as the orthodox.

With the fall of Alexandria into Mahometan power (640 A.D.) all this intellectual activity ceased, or what little was left was transferred to the Saracens, to be later revived in Saracen science and philosophy at Bagdad and Cordova. The library was destroyed by the first caliph, furnishing, it is said, fuel sufficient for four thousand public baths for a period of six months.

FUSION WITH ROMAN EDUCATION. — After the Roman Conquest (146 B.C.) Greek culture in general was rapidly appropriated by the Roman conquerors, and the education of the cosmopolitan period extended its boundaries without changing its character.

The elementary education, consisting of the grammatical study of language, the secondary education, consisting of the rhetorical study of literature and the development of oratorical power, and at least the institutional side of higher education, consisting of philosophical schools, universities, and libraries were largely appropriated by the Romans and given further systematization. In its later phase Roman education, when "captive Greece took captive her rude conqueror," is but one aspect of the cosmopolitan education of Greece.

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TOPICAL QUESTIONS FOR FURTHER STUDY

1. In what respects did the city state, through its demands upon its citizens, furnish an education? (See De Coulanges, *The Ancient City*, and Fowler, *City State of the Greeks and Romans.*)

2. What educational ideals and practices are given by implication or by direct delineation in the following passages in the *Iliad:* I, 52–302; II, 35–380, 445–482; IX, 50–180; X, 335–579; XI, 617–809; XVIII, 245–318; XIX, 40–275?

3. To what extent are the ideals of old Greek education expressed in the oration of Pericles, given by Thucydides? (See *Source Book*, pp. 24–31.) To what extent are the ideals given therein expressions of the new?

4. What further connection between the political and social changes in Greek life and the new education can be discovered in the more detailed account given by Grote, Curtius, Thirlwell, Zeller, Holm, etc?

5. In what respects are the problems of education in the transition period similar to those of the present time?

6. What concrete changes in education characteristic of the transitional period are indicated in *The Clouds* of Aristophanes?

7. In what respects are the activities and the ideals of the sophists similar to those of present-day educators?

8. To what extent does Plato's idealistic solution of the educational problem offer suggestion concerning the formulation of the educational aim at the present time? Educational method? Educational organization?

9. What similarity is there between the approach to the problems of education made by Plato in *The Laws* (Bk. II, pp. 653–654), and the approach made by students in the present time?

10. To what extent are Aristotle's arguments concerning the fundamental importance of education to society, or the state, valid at the present time?

11. How far does Aristotle's solution of the ethical problem of the conflict between the individual and social welfare offer a solution of the educational problem of the present?

12. What are the arguments given by the educational theorists that explain the peculiar use made by the Greeks of music in education? Of gymnastics?

13. How far was the Greek method in education superior to the method of the present time?

14. How far is the Socratic method of instruction valid?

POLITICAL EVENTS AND PERSONAGES	POETS, DRAMATISTS, HISTORIANS, ETC.	PHILOSOPHERS, MORALISTS, CHURCH FATHERS, ETC.	WRITINGS POSSESSING EDUCATIONAL SIGNIFICANCE	EDUCATIONAL EVENTS
Traditional founding of city . . . 753 Kings . . 753–509 Decemvirs . . 451 Censors . . . 444 Italian Wars 343–272				Laws of Twelve Tables . . . 451 First mention of Ludus . . . 449
300 B.C. Punic Wars 264–146 Death of Cato . 148 Conquest of Greece . . . 146 Reforms of the Gracchi . 132 121 Social War . 91–89 War of Marius and Sulla . . 89–79 First Triumvirate 59 Cæsar's conquests . 58–52	Andronicus *c.* 284–*c.* 204 Nævius *c.* 264–194 Plautus 254–184 Ennius . 239–169 Cato . 234–148 Terence 189–159 Lucretius 97–53 Varro . 116–27 Cicero . 106–53 Nepos . 99–54 Sallust . 86–34		Latinized *Odyssey* . *c.* 250 Plautus, *Bacchides* 189 Cato, *de Agricultura*, earliest work in Latin prose . *c.* 175–150 Varro, *Disciplinarum libri novem* *c.* 43 Cicero, *de Oratore* . 55	Andronicus reaches Rome . . . 272 Spurius Carvilius founds school . 260 First Latin play at Rome . . 240 Paulus Æmilius brings Greek library to Rome 167 Crates est. first gram. school and teaches Greek . . . 167 Greek rhetoricians expelled . . 161 First private library . . *c.* 150 Censors expel Latin rhetoricians . 92
55 B.C. Conspiracy of Catiline . . . 52 War of Cæsar and Pompey . 49–48 Death of Cæsar . 44 Second Triumvirate . 43 Reign of Augustus 31 B.C.–14 A.D. Tiberius *r.* 14–37 A.D. Nero . . *r.* 54–68 Vespasian *r.* 69–79 Trajan . *r.* 98–117 Hadrian *r.* 117–138 Antonines *r.* 138–180 Public sale of Empire . . . 193 Roman citizenship conferred on all free provincials . . 212 Absolute monarchy of Diocletian 284–305 Constantine *r.* 306–337	Cæsar . 100–44 Virgil . 70–19 Horace . . 68–8 Sallust . 86–34 Ovid 43 B.C.–18 A.D. Livy 59 B.C.–18 A.D. Pliny, the Elder 23–79 Quintilian 35 A.D.–95 Tacitus *c.* 55 A.D.–120 Plutarch 46–125 Pliny, the Younger 61–105 Juvenal *c.* 55–140 Suetonius *c.* 75–160	Seneca 54 B.C.–39 A.D. Epictetus fl. *c.* 90 A.D. Marcus Aurelius 121–180 Tertullian *c.* 150–230 Clement of Alexandria *c.* 150–*c.* 215 Cyprian *c.* 200–255 Origen . 185–254 Plotinus 204–270 Porphyry 233–*c.* 301	Horace, *Odes and Satires* 35–8 B.C. Tacitus, *de Oratoribus* 79 A.D. Quintilian, *de Oratoria* 96 Martial, *Epigrams* 90–99 Pliny, *Epistles* . 97–108 Juvenal, *Satires* 100–126 Suetonius, *Lives of Rhetoricians* *c.* 121 Marcus Aurelius, *Meditations* *c.* 161 Tertullian, *Prescription Against Heresies* Clement, *The Educator*, *Stromata*, etc.	First public library . . . 39 Palatine Library founded . . . 28 First Imperial support of schools *c.* 75 A.D. Antoninus Pius subsidizes education in the Provinces 138–161 Caracalla destroys foundation of Alexandrian University . . 217 Severus appoints teachers of mathematics at Rome . . 218 Constantine extends privileges of teachers 321, 326, 333
313 A.D. Toleration of Christianity . 313 Council of Nicæa 325 Julian the Apostate 361–363 Goths invade Empire . . . 376 Final div. of Emp. 395 Exposure of infants prohibited . . 374 Last Roman triumph . . 404 Alaric sacks Rome . . . 410 Battle of Chalons 451 Empire combined with the East 476	Eusebius 265–340 Ausonius *c.* 310–*c.* 393 Symmachus *c.* 345–405 Apollonius Sidonius *c.* 430–480 Martianus Capella fl. *c.* 500	Basil . 331–374 Ambrose 340–397 Gregory of Nyssa *c.* 343–*c.* 394 Jerome . 331–420 Chrysostom 344–404 Augustine 354–430	Jerome, *Letters*, to *Læta*, to *Gaudentius*, etc. Donatus, *Grammar* *c.* 400 Augustine, *Confessions* Capella, *Marriage of Philology and Mercury* Priscian, *Grammar* *c.* 500	Julian licenses teachers and forbids Christians teaching . . 361 Gratian orders payment of teachers' salarie in provincial capitals and establishes schedule of salaries . . . 376 Death of Hypatia . . 415 All teachers to be licensed . . . 425 Syriac commentaries on Aristotle . 450

CHAPTER IV

THE ROMANS. EDUCATION AS TRAINING FOR PRACTICAL LIFE

GENERAL CHARACTER OF ROMAN EDUCATION. Dominant Institutions and the Genius of the People. — In many respects the genius of the Roman people was antipodal, in some respects complementary, to that of the Greeks. Dominated by the same institution, the city state, upon which their civilization, like that of the Greeks, was based, they took a radically different course of development. It is in the results of this course rather than in its causes, that we are here interested.

The Roman was not one who found satisfaction in the attainment for its own sake to a subjective state, a state of happiness, a life of contemplation, of æsthetic enjoyment, of intellectual activity. More characteristic of his genius was the striving for some external object; the accomplishment of some concrete purpose lying outside of his own thought life, of some form of excellence or achievement of concrete, even of material, value to his fellows, and similarly striven for by them.

Practical Character of the Roman Genius. — The genius of the Romans was, in a word, wholly a practical one, the great merit of which was that it accomplished concrete results by adapting means to ends. On the other hand, the Greek genius, as will be recognized through a consideration of the fullest development of the Greek mind in their philosophers, possessed a peculiar power of defining proper *aims* in life,

of determining the principles underlying conduct, of attaining to the ultimate analysis of reality. At least these are the things that the Greeks sought for; and we recognize that the Greeks defined for all time those things, that have been by all ages deemed the most worthy objects of the present life,— æsthetic enjoyment, intellectual power, moral personality, political freedom, social excellence,—called culture. The work of the Romans was the practical one of furnishing the means, the institutions, or the machinery for realizing these ideals. Hence they have ever been looked upon as a utilitarian people. They borrowed the Greek idea of a confederate government and developed it into a universal empire; they borrowed the Greek idea of law and developed it into a system of legal principles that even yet guides modern nations in their complicated life; they adopted the religion of a despised sect of a despised race and made of it the religion of the civilized world, the one by which they subdued the savage world. In all of these respects and in a multitude of less important ways, the Romans showed their genius in elaborating the institutional organization necessary to make effective the aspirations of other people. If the ideals of modern life are largely drawn from Greek and Hebrew sources, its institutions are even more thoroughly Roman in their origin and nature.

Roman Standard of Judgment.—This general characteristic suggests a further one. Contrasted with the Greek tendency to measure all things by the standard of reasonableness, or harmony, or proportion, we have the Roman tendency to judge ever by the usefulness, the effectiveness of a thing. The Greek estimate was the intellectual or æsthetic one resulting from the consideration of ultimate aims or values; the Roman estimate was the utilitarian one drawn from a consideration of the serviceableness of a thing as judged by its relation to institutional life. For this reason the Romans tended to look upon the Greeks as a visionary,

unpractical people, while the Greeks considered the Romans somewhat as sordid barbarians, with force of character and military strength, but with no appreciation of the higher aspects of life and of culture. The Greeks were imaginative, impulsive in their actions, and joyous in their view of life; the Romans were matter of fact in their estimate of things, grave and sedate in their bearing, severe in their standards of conduct, and superior to the Greeks in dignity and moral force. "The Greeks never lost their youth; the Romans were always men."

Influence of Religion on Education. — This contrast between the characters of the two peoples is well illustrated in the diverse influences of religion upon their education. While the Romans possessed household gods of the same character as those of the Greeks, these gods, representing general forces, were quite different until they came to be modified by Greek ideas. The Roman gods of the earlier period were impersonal representations of natural forces and social activities. They were mysterious beings without human power or feelings, who influenced human life without sympathy with its hopes or joys or fears as with the Greeks. There was no Olympus, no marriage, no offspring; they were merely a crowd of oppressive beings of mysterious character, constantly interfering with human affairs, yet removed from the circle of sympathy with them. As a result there existed a constant necessity for placating and appeasing them, not so much through joyous activities, as with the Greeks, as through an elaborate ceremonial that was often but little removed from the incantations of primitive man. In the course of historical development, especially upon the identification of the Roman gods with the personality of the Greek gods, this severity was much mitigated. Yet with the Romans religion always remained a practical means for getting on in the world, — a means for regulating everyday life, — and hence was more closely connected with

political and business affairs than with the Greeks. Everything was sacred, everything was to be done in an established way, every act had its appropriate religious ceremony. There was a god of fallowing, of plowing, of sowing, of covering the grain and of harrowing; a god of the grain in germination, a god of grain in the joint, a god of the grain in the sheath, and so on for every phase of the life of the husbandman and of every other interest or activity in life. Religion was no exalted faith, no lofty aspiration after virtue, no idealization of the beautiful, no attempt to reach the life of intellectual activity or of contemplation or of highest religious and ethical significance. Religion had little influence of an intellectual and æsthetic character upon the life of the people and consequently upon their education. On the other hand, while full of superstition, it had a distinct ethical influence foreign to that of the Greeks; it consecrated love of country, hallowed the family relation, preserved the sanctity of the oath, developed the sense of duty — all of which things the Greek religion did not do. These influences on life constituted the contribution of Roman religion to Roman education, for the development of these traits was the practical aim of their education.

Contributions of Rome to Civilization. — The permanent contributions of the Romans to civilization were, then, of two great types: Through their development and organization of law they furnished that institutional organization of life that serves to a large extent as the basis of modern social life; through their influence on the practical virtues, chiefly through the law and the state, but also later through the adaptation of the Stoic philosophy and the propagation of the Christian religion, they contributed to the exaltation of the moral conception of life. Thus it follows that they have exerted much less of permanent influence on education, in the narrower sense, than have the Greeks. No science, no speculative philosophy, no contribution to the

abstract intellectual or æsthetic elements in education followed from their conception of life and religion. Their influence was wholly the practical one of adaptation and organization.

Roman Ideal of Education shown in their Conception of Rights and Duties. — The rights of the Roman citizen — including by the time of the Antonines, the end of the second century A.D., practically all free citizens of the provinces — were five in number and all clearly defined by law. These were: the right of the father over his children (*patria potestas*); the right of the husband over his wife (*manus*); the right of the master over his slaves (*potestas dominica*); the right of a freeman over another that the law gave him through contract or through forfeiture (*manus capere*); and the right over property (*dominium*). The freeman received these rights by birth, for by descent each Roman was a freeman, a citizen, and a member of a family. But after the earlier centuries these rights could also be acquired either by naturalization or adoption or by enfranchisement.

Rights and Duties of a Father. — The right of the father was the strongest, the most characteristic, and the most important right of a Roman. When the child, soon after birth, was laid at the feet of its father, as a religious ceremony, it could either be lifted up by him and thus accepted into the family; or, on account of deformity, or poverty, or other cause, it could be left to be placed at some crossroads to die or to be carried into slavery. This custom was not subject to the abuse prevalent in Greece; but, since this was a religious ceremony, the Roman father was presumed to have, and usually did have, some good reason for rejecting a child; this custom, which appears so monstrous to modern ideas, was to them a most practical way of serving the state by eliminating all unworthy citizens and of preserving the stability and the purity of the family. This right over his child the father did not lose even when the son became a citizen, a soldier, and a property holder in his own right, and

even an officer of the government. Nor did he lose his right over his daughter at her marriage unless his consent to the relinquishment of that right was given in a special religious ceremony transferring her into the other family. This power of life and death, the right of executing all law upon his own children, resided in the father until late in imperial times; though then the few recorded instances of its exercise were occasions for popular tumults. Long before this time, this right, together with the accompanying one of the sale of a child, was modified by legal restriction in the form of corresponding duties.

In truth this union of obligations with rights was a principle fundamental to Roman thought, and by them made fundamental to all modern law. Every right has its corresponding obligation. The Greek's highest conception of life was in terms of virtue, of happiness, — in some form of personal satisfaction; the Roman's highest conception was given in some form of duty with its corresponding right; life in terms of law or principle. One was essentially the æsthetic interpretation of life; the other was essentially a moral view of life.

Hence these great powers of the father were exercised for the good of the state and the good done the family by the performance of his duties respecting them; for any negligence of these duties there was meted out a corresponding punishment equally well specified in their law. Though the boy, at sixteen, assumed the toga of citizenship, served in the army (in the republican days), voted in the comitia, held office and property, yet the power of the father remained until dissolved by death.

Religious and Economic Duties. — As the head of a family and the possessor of goods, the father was a priest with religious duties to perform. All the household activities, all relationships and special occasions, such as birthdays, festal days, and marriages, were rendered sacred by religious

ceremonials. Then, too, for the family he must participate in public religious worship. Each day had its minute duties of a religious kind prescribed by law or by custom. Moreover, as the head of a household and the holder of property, he had many economic duties to perform far more important and burdensome than the similar interests of the Greeks. Each Roman in the olden days was a farmer, and the management of the estate as well as the actual work upon it formed a part of his pride in citizenship. So fundamental was this activity that when the Romans came to develop the conception and process of education, they gave to it the term indicative of this process, and *cultura*, culture, came to signify in the intellectual and spiritual life what agriculture, the cultivation of the fields, meant for them in their practical life. The Romans were not, as the Greeks, averse to the industrial life. Even in imperial days, the boy of sixteen, if of well-to-do parents, prepared for military or civil service; the boy of the poorer family entered into a trade with no detriment to his citizenship. And when yet later the numerous conquests crowded the ranks of all industrial and commercial occupations with the slaves of the wealthier class, the empire made its distribution of food supplies to support the poorer citizens and to prevent the depletion if not extinction of the free citizen class. Very early in the days of the republic the importance of this business training along with the agricultural appears, and the keeping of accounts becomes one of the earliest elements in their schooling.

Political Duties. — So, the young man as well as the head of the family had specific duties of citizenship. In the days of the republic he sat in some of the various comitiæ or public bodies. He had to take legal care of his property, make contracts, draw his will for presentation to one of these bodies, or later take part in some portion of the civil service. As a soldier, at all periods until the formation of the mercenary army, he had his military duties to perform.

Now all of these duties demanded of the father and of the citizen, in return for the great privileges conferred upon them, a definite training through the years of boyhood that the appropriate abilities or virtues might be developed. Though this training was only to a slight extent, even in any historic period, furnished by the school, yet a definite education of positive character and great value was furnished by the home.

Elements in this Educational Ideal. — In the performance of these duties certain definite virtues or moral characteristics were demanded. The moral ideals of life formulated by the Romans do not present the development of the Greek ideal, for they do not contain the same idealistic elements. The virtues demanded were all of an extremely practical character, and they were formulated from an actual living type. Manhood, as exemplified in living men or in well-known historical personages, furnished the standards which the youth was expected to approximate. While the characteristics of these types furnished no exalted ideal, they at least were models permitting worthy imitation and exemplifying the practical virtues of a vigorous, successful people. These virtues appeared in the personal traits of the heroes exalted in the national legends and the poems of the later literature of the people.

Foremost of these virtues was that of piety, the obedience to the commands of the gods and of parents. Piety contained the religious idea of reverence and of filial regard for parental control. Together with modesty it approximated the Greek idea of reverence, the balance or harmony of conduct, though this ideal never received a formulation springing from an æsthetic appreciation of conduct as it did with the Greeks. Manliness, or firmness, or what we term character (*constantia*) was a virtue valued by the Romans and exemplified in their lives more than in that of any other ancient people, though it hardly appeared in the Greek ideal of life

As a result of this the other virtue of bravery or courage had much more of the idea of fortitude than did the corresponding Greek ideal. Since "Rome must never conclude a peace save as victor;" so no Roman must ever voluntarily quit a strife before having vanquished. There was none of the fear of excess that characterized the Greek; the bravery of the Roman was buttressed by their idea of fortitude and of obedience, not qualified by any conception of temperance or of moderation in the performance of any activity, much less in that of physical bravery and of devotion to the state. To these virtues were added two more homely ones, characteristic of a practical people only and growing out of a life of industrial activity, where actual participation in the toil of life was considered a duty and not a disgrace. These were prudence, especially in the management of one's business affairs, and honesty or fair dealing in all economic relations. Earnestness (*gravitas*), graveness, sedateness, sobriety in conduct, a dignity of bearing were substituted for the Greek idea of gracefulness. If viewed from the standpoint of the individual, all were summed up in the ideal of duty; if from the standpoint of the state, in the ideal of justice. Though at the beginning the Greek ideal of virtue was largely that of devotion to the state, the ideal of physical bravery soon ceased to be its chief element; their moral ideal was ever formulated in some form of virtue, in terms of personal satisfaction. In time their ideal became formulated in terms of happiness or in terms of intellectual activity. The Roman ideal, on the other hand, ever continued to keep as its basal element the idea of bravery or of virtue in the sense of devotion to the state. Virtue, then, in terms of duty, as stated in principles or in law, remained the Roman conception of life. Life in terms of virtue is the idealistic formulation of life; life in terms of duty is the moral conception of life as formulated by the practical man.

The elaboration of the details of this conception of life in

terms of rights and duties was the great task of the Romans and their greatest contribution to civilization. This balance between rights and duties is preserved by the state and constitutes justice. Hence it is that the entire obligations of man, as consisting in the performance of his duties and the maintenance of his rights could be summed up in his relationship to the state, by which means justice among all men would be maintained.

The Practical Education. — With a people to whom religion was merely a means for expediting the practical affairs of life, education could not be more idealistic. As religion never inspired to any exalted view of life, so education never became more than a preparation for life's practical duties. Just as mildew was kept from the grain, or rust and accident from the hinges of the door by the worship of appropriate gods or spirits, so each specific duty on the farm, — its plowing, reaping, preparing the grain, — each duty in the household, each exercise in the martial camp or field, had its specific training, and education was but the sum of such preparations for the practical duties of life.

The Home as the Center of Education. — In a conception of education that for the most part has to do with the formation of moral character, schools can have but a minor place as an educational means. And so it was at Rome. Their place was taken by other institutions, above all others, the home. The whole tendency of Greek life was to minimize the importance of home life. Even in the highest expression of their ethical and social thought, in the educational system of Plato, the home was eliminated. It was quite the contrary at Rome: there the whole tendency was to magnify its importance. The peculiar power of the father exalted his functions and made the family the social unit, even in many legal respects. The moral importance of the home, as well as its legal and social importance, was emphasized. The father was responsible for the moral and physical training of

the boy. The mother held a position far superior to the place of women in Greece. Within the home she was dignified with a position of independence and responsibility. She was more the companion of her husband socially and more his partner in his management of the home than in Greece. She herself reared and cared for her own children instead of turning them over to a nurse. When somewhat grown up the boy became the companion of his father in place of being turned over to a slave or a pedagogue, as with the Greeks. When the Greek influence became powerful, though pedagogues were, to be sure, introduced, it was only by the wealthier classes and then only as an adopted custom — one



LIFE OF A ROMAN BOY. FROM A SARCOPHAGUS.

that never became national in character. Speaking of his own education, the poet Horace (born 65 B.C.) says: —

"If my life is pure and innocent and my friends love me, I owe it all to my father; he, though not rich, for his farm was a poor one, would not send me to the school of Flavius (at Venusia), to which the first youths of the town, the sons of centurions, the great men there, used to go, with their bags and their slates on their left arm, taking the teacher's fee on the Ides of eight months in the year; but he had the spirit to take me, when a boy, to Rome, there to learn the liberal arts which any knight or senator would have his own sons taught. . . . He himself was ever present, a guardian incorruptible, at all my studies."

This passage forms one of the few descriptions of school life — when schools are developed — that is to be found in

Roman literature; but the points to be noticed here are the great personal interest of the father in the education of his son and the prevailing moral content of that education.

Almost two centuries later, when the corrupting influences that had entered into the cosmopolitan life of Rome were in full swing, in his satire (XIV) upon the vices of the Roman people, Juvenal formulates the ever memorable principle not only of Roman but of all education, — "The greatest reverence is due the child." This responsibility of the father for the education of his child, at least in the formation of his moral character, was not only of importance to the child but it also reacted upon the father. The stability and the perpetuation of these virtues, of a sturdy, rugged character among the ranks of the common people long after the majority of the families in the upper class, especially in the imperial court circles, had fallen into most vicious debauchery, was quite largely due to this restraining influence of the home and to the father's responsibility for the moral character of the boy. The continuation of the quotation from Juvenal indicates this: "If you are contemplating a disgraceful act, despise not your child's tender years, but let your infant son act as a check upon your purpose of sinning."

In a similar way the influence of the mother was greater, as the position of woman in general was higher, at Rome than that among any other ancient people. This greater scope to her influence was not through her participation in public life, hence there is little direct mention of it; but it was through this higher authority and freedom in the family. Even granting that the mention of specific instances are not numerous, no other ancient people furnish cases of influence of women comparable with that of the mother of Coriolanus, the mother of the Gracchi, and others of a similar type.

Biography as a Means. — The influence of the home was supplemented by that of concrete types of Roman manhood. No other people have so effectively used the personages of

importance in their own history in the formation of the character of the youth of each generation. Their earliest literature consisted of the legends and heroic tales of the early Romans. Their songs were but the glorification of these same deeds. Something similar to this occurred in Greece in the earlier period. The Grecian heroes, however, were demigods or were constantly protected by the interposition of the gods, and hence were beyond imitation by the wiser men of later generations; the Roman heroes, on the other hand, possessed virtues and performed deeds such as could be imitated by every Roman boy. As the Greeks sought to shape character by poetry, music, gymnastic, and dancing, so the Romans did by these two means, — the influence of father and mother in the home, and that furnished by familiarity with the heroes of the past.

An indication of the importance of such material as the content of education is furnished by Plutarch's *Lives*, which to the Romans were lectures on education. Though written by a Greek, such was probably their use at the time of their formulation, and such no doubt was the character of the literature, if such it may be called in its rudimentary form, that formed the basis of the Roman education both in the home and in the school. The perennial interest aroused and the influence exerted by these writings are a slight indication of the value of this phase of Roman education. Mr. Lecky has called attention to the very potent influence of such personal ideals when embodied in personages near in time and place and nature; more potent, indeed, than those of the subsequent centuries wherein such ideals were furnished by saints, by those who possessed supernatural traits, or by Biblical characters living in remote centuries and possessed of racial characteristics of long ago.

Thus again is found a trait of the practical mind: its ideals are found in the real, not in the imaginary, — not in a single trait idealized and personified. Its ideals are not too remote

but are found in concrete personal forms of actual personages.

Imitation as the Method. — From what has been said it follows that the most important characteristic of the method of Roman education was imitation. While the Greeks emphasized the assimilative character of the soul and hence sought for educational results by creating an environment of cultural value through public works of art, religious ceremonials, dramatic presentations, and a free and open life in public places, the Romans emphasized the imitative character of the soul and sought for educational results by placing before the youth a concrete character to be followed. Though the pedagogue and the inspirer performed a somewhat similar service with the Greeks, yet the function of these was rather to control and direct; at least this was true of the pedagogue, who, because a slave, was not to be imitated. The Roman youth was to become pious, grave, reverential, courageous, manly, prudent, honest, by the direct imitation of his father and of old Romans of so heroic a character as to be embodied in their legends and histories, yet withal men who had actually walked the streets and had gathered in the Forum before him.

While this use of imitation by the Romans was of less free character than the similar use by the Greeks, it was not the servile imitation of the Oriental. To begin with, it was the imitation of a living model, not of a lifeless form or a specific custom relating to petty forms handed down from time immemorial and without meaning to the imitator. So far as the Roman was bound by such traditional ways of doing things, the most important of such accepted customs were formulations of principles, embodied into a code of laws, interpreted by each successive generation to fit the needs of a developing civilization and of a people ever widening their contact with others.

In one other important respect does the method of Roman education differ from that of the Greeks. With both peoples

education was primarily a process of doing as opposed to one of instruction. Certain activities were undertaken to form certain approved habits. Subsequent to this earlier phase of their educational development, the Greeks added a process of instruction to make such habits rational; this the Romans never developed as a component part of their education. Though in later periods they adopted the Greek custom, it was not a native process, neither did it form an essential part of their conception of education nor become of general use and significance until well on in the imperial period.

Then, too, there was a radical difference between the "doing process" of the Greeks and that of the Romans. In school the Greek boy was trained in gymnastics and dancing to produce a harmony and grace of physical development and of moral control: he learned to play the lyre and to repeat the Homeric poems with appropriate musical accompaniment, all for the purpose of developing a harmony of the soul. The Romans rejected as marks of effeminacy, such gymnastic training, dancing, music, literature; in brief, all such educational means as the Greeks employed. Through games, it is true, the Roman boy gained in physical development to a certain extent; but not through any organized and systematized use of them. There were no gymnasiums, but physical development was secured on the martial fields and in the camp, and through the actual exercise with weapons, supplemented by the actual training which he got on the farm. In every respect the training of boys was either through an apprenticeship to the soldier, the farmer, the statesman, or by actual participation in these activities that were later required of them as citizens. Thus in method is seen the characteristic of the practical education, — the doing of the actual thing to be done — with no appreciation whatever of the training and instruction in certain selected activities that possess cultural value because they plant in

the very nature of the child germs of a much fuller development in manhood, activities such as characterized the liberal education of the Greeks.

PERIODS OF ROMAN EDUCATION. — Roman education divides itself into two great periods: the one wherein its ideals and practices are purely Roman, the other in which Greek influence is prominent and education becomes of a composite or cosmopolitan character. This change bears some striking resemblances to the transition to the new Greek education at Athens; but owing to the much more stable character of the Romans, the change was a more gradual one than in Greece and affected the masses of the people much less radically. In some respects, particularly in religion and to a certain extent in their laws, the Greek influence was early exerted upon the Romans. It was a tradition that the *decemvirs* visited Greece previous to the formulation of the Laws of the Twelve Tables (450 B.C.). From Greece also at an earlier date they had drawn their alphabet. Yet no profound influence was exerted socially and little educationally until near the middle of the second century B.C. Subsequent to that time the Greek educational ideals may be said to dominate, so far as formal or institutional education is concerned. The somewhat radical conquest in this respect was due to the fact that Rome had no native system of educational institutions to be supplanted. Various events may be taken as indicative of this change. Professor Laurie accepts as the point of demarcation 148 B.C., the death of Cato, who for so long and so strenuously opposed the growth of Greek ideas and customs. The date of the conquest of Greece by the Romans, 146 B.C., might with equal propriety be taken, since immediately thereafter many Greek scholars, Greek literature, and even libraries were transferred to Rome by the conquerors. The year 161 possesses a similar significance, for at that time the senate

at the instigation of the prætor decreed the expulsion of philosophers and rhetoricians from Rome. All three events indicate that the conquest was only begun, and that the dominance of Greek educative practices and institutions does not become complete until about the time of the empire (31 B.C.) But if a specific personality must be found to make definite the delimitation, no individual would be so significant as Cicero (106–43 B.C.), who was the first Roman to rise to prominence and to power through oratory; and if a specific date is desired, 55 B.C., the date of publication of Cicero's work on Oratory would be most appropriate, for this work is the first formulation by a Roman of the Grecianized educational ideal. Each of these general periods divides into two sub-periods.

Period of Early Roman Education (753 – about 250 B.C.). — During this period the features previously given concerning Roman education dominated completely. The rearing of the child was in the hands of the mother, the training of the boy in the hands of the father. The home was practically the only school, though early the boy became the companion of his father in business, public and private, on the street, in the forum, and in the camp. Education was largely moral; discipline was severe; their ideals were rigorous. The slight literary element entering into their education was that connected with the religious and choral service, where religious choruses and national hymns were to be learned, and in connection with the Laws of the Twelve Tables. These fundamental laws of the republic, adopted 451 and 450 B.C., remained the basis of Roman society for almost a thousand years. In the function they performed these laws resembled somewhat the laws of Lycurgus, though they dealt not with education but with the power of the father, property rights, religious services, political and military obligations, and similar subjects. In the broadest sense, they constituted the framework of Roman society and hence

embodied the ideals of life that gave to education its concrete ends. The relation of the laws to education in the narrower sense consisted, first, in the definite embodiment of the power of the father over the child and his duty concerning his training; second, in the custom followed for many generations of requiring every boy to learn the tables as they were posted in the Forum and to become perfectly familiar with their meaning. This in itself offered no insignificant intellectual training, though its practical character made such training very different from that which the Greek boy acquired from a similar familiarity with Homer.

During the latter part of this period, elementary schools furnished the rudiments of the arts of reading, writing, and arithmetic. Shortly after the introduction of the Twelve Tables, mention is made of them in the story of Virginia, who is said to have been seized from one of these schools by one of the decemvirs. Whether this be true or not, such schools appear long before the close of this period and supplement the education of the home in formal matters. Such elementary schools were known as *ludi* (*ludus*, —*play*, *sport*, or *a turning aside*),[1] a name that indicates that their function was only supplementary, and that they were not essential to the real education of the Roman youth. Such schools were of a purely private character, and were held in some private home or in an unfrequented nook or porch of a temple or other public building. Even in the matter of the training in the arts of reading and calculating, these schools evidently represented a "diversion" from the ordinary custom of the home.

Period of Introduction of Greek Schools. — The time from the middle of the third century to the middle of the first century constituted a period of transition, during which Greek customs and ideas were introduced. This period substan-

[1] A somewhat similar idea is contained in the Greek word for school, — *scholé*, leisure.

tially coincided with the period of national expansion through out the peninsula of Italy. Previous to this time Rome was only a local community; after this period Rome became an empire which had necessarily to acquire a cosmopolitan culture. By the time of the opening of this transitional period, the elementary schools (schools of the *literators*, they were also called) were quite numerous and soon came to be known as schools of the *grammatists* as well. This of itself indicates that a transition was going on. About the opening of this period Livius Andronicus (c. 284–204 B.C.) translated the *Odyssey* into Latin. The book was soon introduced into these schools, giving them a more literary content than they had hitherto possessed. The translation of other Greek productions followed rapidly, and Latin literature took its rise at the same time. This growth of literary material soon produced a radical advance in education, namely, the introduction of the Greek grammar school distinct from the ludus in form, and superior to it. The exact time of introduction is difficult to determine. The Greek Andronicus, previously mentioned, was (in 267 B.C.) brought as a slave to Rome from his home in southern Italy, and after securing his freedom is said to have become a teacher of the Greek and Latin languages. Ennius (239–169), another Greek author and translator, is said to have engaged in similar work. Plutarch mentions Spurius Carvilius as the first to open a school at Rome (260 B.C.). Undoubtedly Plutarch means a grammar school, for the schools of the literators were frequent before this time. It is probable that none of these did more than give some knowledge of Greek literature through translations, and some slight knowledge of the language to a chosen few. Consequently they cannot be said to have established schools. Suetonius mentions Crates of Mallos, a Greek ambassador to Rome, who met with an accident through falling into an open sewer and was thus detained at Rome (157 B.C.) as the first Greek teacher there. Suetonius opens

his *Lives of Eminent Grammarians* (written about 121 A.D.) as follows: "The science of grammar was in ancient times far from being in vogue in Rome; indeed it was of little use in a rude state of society, when the people were engaged in constant war and had not much time to bestow upon the cultivation of the liberal arts. At the outset, its pretensions were very slender, for the earliest men of learning, who were both poets and orators, may be considered as half Greek." He then goes on to mention Livius and Ennius, as the first of these, and Crates as the first teacher of grammar. Ennius came to Rome in 204 B.C.; Crates in 157 B.C. However doubtful the origin may be, it is certain that by the close of this period, at the date given by Suetonius as that of the first grammatical teacher, schools of this kind, taught by a *grammaticus* or *literatus* as distinguished from the grammatist or literator of the ludus, were frequent; for in 161 B.C. the Senate decreed that "It shall be lawful for M. Pomponius, the prætor, to take such measures, and make such provisions as the good of the Republic and the duties of his office require, that no philosophers or rhetoricians be suffered at Rome."

This edict refers to another type of teachers higher than and developing from the grammar teachers. According to Suetonius (b. 79 A.D.), who gives us this information, grammarians came in time to teach rhetoric, and it was a frequent occurrence, even within the memory of his own father, that "some of the pupils of the grammarians passed directly from the schools to the courts." But long before the time of Suetonius, even before the close of the period we are now considering, the Greek conquest of Roman education was insured by the introduction of the schools of rhetors to continue the work of the grammarians. That the reception of these innovations was not a hearty one and that their influence was not general until the imperial period, is evidenced by the fact that the instances of the few notable men

who underwent a rhetorical training and profited practically by it, such as Cicero, Pompey, Cæsar, Mark Antony, and even Augustus, are cited by Suetonius as unusual. He states that by slow degrees, rhetoric made itself manifest as a useful and honorable study, and that many persons devoted themselves to it, both as a means of defense of personal rights and as a means of acquiring reputation. The custom of sending the youth to Greece to receive this rhetorical training, as in the case of Cicero, became established during this period. The introduction of the Latin rhetoric school not only supplemented the work of the Greek rhetorical schools, but gave a much wider scope to this formal or rhetorical education, since it affected a much larger portion of the population. In 92 B.C. the censors issued the following decree: —

"It is reported to us that certain persons have instituted a new kind of discipline; that our youth resort to their schools; that they have assumed the title of Latin Rhetoricians; and that young men waste their time there for whole days together. Our ancestors have ordained what instruction it is fitting their children should receive, and what schools they should attend. These novelties, contrary to the customs and instructions of our ancestors, we neither approve, nor do they appear to us good. Wherefore it appears to be our duty that we should notify our judgment both to those who keep such schools, and those who are in the practice of frequenting them, that they meet our disapprobation."

Both the similarity of the movement and of the attitude of the conservative elements in society to that of the transitional period in Greece is indicated by this edict. Yet it is evident that throughout this period the old Roman ideals and practices in education prevailed and that the process centered in the home and not in the school. Aside from the *ludus*, now all but universal but always private in character and often kept by a slave, the schools were an innovation and influenced only a small element composed of the leading families

The account which the Emperor Marcus Aurelius gives of his own education, as late as the second Christian century, suggests how extensively the old customs and ideas persisted even so late in the imperial period.[1]

Third or Imperial Period: The Hellenized Roman Education. — During this period, including about one century B.C. and two centuries A.D., the Romans attempted to introduce the new wine of Greek culture and intellectual activity and individualism into the old bottles of Roman institutional life. Never before, perhaps never at any time, has one people attempted to appropriate so thoroughly the intellectual life of another. The native vigor of the Roman character made it possible to do this without a complete surrender of their own characteristics and consequently rendered some modification of the Greek intellectual and educational characteristics necessary. The Romans never acquired the intellectuality, versatility or the originality of the Greeks; at most, they succeeded in mastering the external; at best, they perfected the form of literature; at worst, in the later centuries of the empire, in intellectual life and literature their education became one of pure form possessing little content or real value.

The general means by which the Romans appropriated the Greek culture was by an adoption of their educational institutions, now perfected into a system such as the Greeks never developed.

The School of the Literator (or *Ludimagister*) during this period was somewhat more fully developed, though the details of its work are not fully known. Even at this time this elementary school never attempted to give more than the merest rudiments of the arts of reading, writing, and calculation. Since reading was taken up in the grammatical school as a fine art, it is probable that, when the boy had mastered the art of reading ordinary prose, he was immediately transferred to

[1] *Source Book*, pp. 377–385.

the higher school. By the time of Cicero, the Laws of the Twelve Tables disappeared from these schools, and their place was taken by portions of the Latinized *Odyssey* or by versified moral maxims. Though there are frequent exceptions, as in the case of Horace (p. 186), whose description of school life is pertinent in this connection, the Greek pedagogue had generally replaced the father in the direct oversight of the child. More attention was given at Rome to the selection of the pedagogue than in Greece. That they were not all ignorant is evidenced by the case of Palæmon, author of one of the earliest scientific treatises on Latin grammar, who first distinguished the four declensions, who was the instructor of Quintilian, and was himself one of the most famous Romans of his day. Yet he acquired the rudiments of literature as he attended his master's boy in the school as a pedagogue.

Such schools were very common. The room was in a private house or in a shed or booth, or even in the open air. This phase of education, being non-Grecian, never received any general attention, nor such teachers — often mere slaves — any public esteem.

The School of the Grammaticus now became a definitely formulated educational institution with an elaborate method, a fixed curriculum, and receiving public support. Such schools were of two types; the one for the teaching of the Greek language, the other for the Latin language. Quintilian recommends the attendance at the Greek schools and the learning of the Greek language first. The Latin Grammar Schools at least were to be found in every city in the empire and remained as one of the most persistent institutions of the old pagan civilization until the overthrow of Roman culture by the barbarians. The major part of the work of these schools was, as the name indicates, the study of grammar. But grammar included more than the term signifies with us, for it related to the study both of the linguistic elements and of the

literary products of a language. They were essentially literary schools: a master was called a *literatus* as well as a *grammaticus*. And literature might be, certainly was in the conception of Quintilian, a broader conception than with us, for it included the work of the historians and of the scientific writers as well as of the poets. Varro (born 116 B.C.), the learned Roman of the period of Cicero, wrote on all the seven



A Roman School. From a Mural Decoration at Pompeii.

liberal arts, *i.e.* grammar, rhetoric, dialectic, arithmetic, geometry, music, astronomy, and on medicine and architecture besides. For the Romans, the world of learning had become quite identical in outline with that of the Greeks. It is certain that to some extent mathematics, music, and rudimentary dialectics were introduced into the grammar schools. The fact that these schools trespassed upon the grounds of the rhetorical schools has previously been noted. This combination of function continued, especially in smaller communities, late into imperial times. In all of the studies mentioned the

practical character of Roman life was never lost sight of, their use never became identical with that in the Greek schools. Gymnastic and dancing were never introduced; the former was taught only in connection with military training and the latter, if ever, in the home. To the legal tendency, the systematizing character, and the practical bent of the Roman mind, the study of grammar recommended itself, and it is in this subject that the educational activities of these schools are seen to the best advantage. The elements of Latin grammar were formulated early in the imperial period, though the particular form given to the subject in later ages was the immediate work of Donatus (fourth century) and Priscian (fifth century).

Quintilian has furnished a general account of the work of these schools at their best. The master read with the pupils a wide selection of poets and historians, of which the Latinized Homer, Vergil, and Horace were the standards. Comment was made upon both substance and literary form, and especial attention was given to oral reading, as preliminary to oratorical training. This was followed by elaborate exercises in paragraphing, composition, and verse writing. A much used form of exercise was the assignment of a theme in the form of a quotation or maxim from some writer, to be taken as the basis of an elaborate thesis or composition. This then was declaimed. According to Professor Jullien such theses followed this outline: (*a*) a panegyric upon the author, (*b*) the expansion of the thought, (*c*) the explanation and defense of the principle underlying the thought, (*d*) a comparison of the thought with similar ideas of other authors, (*e*) confirmatory quotations or incidents, (*f*) practical exhortation. Through the training in declamation afforded by these exercises the work of the grammatical school merged into that of the rhetorical school. But the main purpose of the former was different from that of the latter: in the grammatical school the object was to give a mastery of the lan-

guage, a correctness of expression in reading, in writing, and in speaking, and to do this through a familiarity with the best Greek and Latin authors. Thus the literary education developed by the Greeks as the highest form of the liberal education was further developed along the definite line of a practical education for the life of affairs.

The School of the Rhetor was the culmination of this practical literary education. Similar to the schools of the sophists, or rather, of the later rhetoricians of Greece, these schools furnished a direct preparation for the life of public affairs at Rome, and consequently were patronized only by those who expected to devote their lives to a public career. During the later imperial period such a life became the distinctive characteristic of the members of the senatorial class, as that class was enlarged to include great numbers who had no other qualification save the favor of the emperor or some high official or the possession of wealth which would enable them to secure exemption from the obligations of ordinary citizenship. Hence, although all inspiration that might come to oratory from love of freedom was gone, this rhetorical education developed and expanded during these imperial centuries.

Oratory was of greater and of more lasting importance at Rome than among the Greeks. Whereas the Greeks found an outlet for their higher intellectual interests in the philosophical schools and in the new religions, the Romans found in oratory the practical application of every aspect of higher learning that appealed to them. As Cicero explains in his *de Oratore*, the orator must have the philosopher's knowledge both of things and of human nature, but he must also have the power to make such knowledge of practical value in influencing his fellows through speech. To the Roman, then, this power of the orator represented in general the various ways in which an educated man in modern times can make his knowledge effective in the

service of his fellow-men. It is not that this conception of education is narrow, but rather that the social organization of the times gave but few facilities for bringing intellect to bear upon practical affairs. The great warriors of the times were also great orators; they were often great leaders because great orators. The orator was greater than the philosopher, because the orator included the philosopher. The functions performed in modern society, by the pulpit, the press, the rostrum, the bar, the legislative debate, even by the university, were in those times all performed by the orator. Hence at its best the ideal was a great one. It is only when we come to consider its ordinary realization that it appears formal, artificial, and restricted.

The rhetorical training of the youth began at about the fifteenth year of age, the time the boy laid aside the *toga prætexta* and assumed the dress of manhood. Then if destined for a public career he entered the rhetorical school to supplement the thorough linguistic training he had received in the grammar schools. The length of time spent on this stage of education would depend upon his interests, his abilities, and the schools he attended.

The routine of the school consisted for the most part in declamation and debate. The stock themes for debate find frequent mention, especially in the writings of the satirists. Among such themes were these: "Was Hannibal justified in his delay before the walls of Rome?" "Was a slave about whose neck a master had hung the leather or golden token (the *bulla*, worn only by the free Roman youth), in order to smuggle him past the boundary, freed when he reached Roman soil wearing this insignia of freedom?" "If a stranger buys a prospective draught of fishes and the fisherman draws up a casket of jewels, does the stranger own the jewels?" These and similar problems relating to fine distinctions in Roman law or in moral principle were the whetstones of their rhetorical wits.

At its best, however, the rhetorical school included much more than this exercise in debate. According to Quintilian, the grammar school should thoroughly acquaint the boy with all literature; and the rhetorical school, in a similar manner, should give him a knowledge of music, of arithmetic, of geometry, of astronomy, and of philosophy. He rejects the objection that so many studies cannot be followed with profit, and holds that the human mind can attend to many things at once and that the orator, above all others, must possess this power. Quintilian enumerates the qualifications of the orator as follows: a knowledge of things (gained through a mastery of literature); a good vocabulary and an ability to make careful choice of words; a knowledge of human emotions and the power of arousing them; a gracefulness and urbanity of manners; a knowledge of history and of law; a good delivery; a good memory. Beyond this he holds, also, that no one can be a good orator unless he is first a good man. This is the ideal, sketched by the most successful teacher and the ablest expositor of this conception of education; but as with most educational ideals, the extant fragmentary knowledge of the actual status of these schools forces the conclusion that it was far removed from the reality.

Libraries and Universities. — In a most literal sense the higher education of Rome was an imitation of Greece. Its earlier libraries were taken as spoils from the Greeks, just as the earliest of its higher teachers were slaves or refugees from Greece as a result of the Roman conquest. In 167 B.C. the conqueror Paulus Æmilius brought over the first of these libraries; Sulla and later conquerors brought others. Augustus founded two public libraries. With the golden age of Latin literature, books were multiplied, many libraries were founded, and all the appurtenances of an age of culture abounded. With the library founded by Vespasian (69–79 A.D.) in the Temple of Peace, erected after the fire

of Nero, the university of Rome had its origin. Under Hadrian (117–138 A.D.) and the later emperors interested in literature and education, this was developed into a definite institution termed the Athenæum, though it resembled more the university at Alexandria. Following the influence of this institution and the practical genius of the Romans, the university gave more attention to law and medicine than to philosophy. The liberal arts, especially grammar and rhetoric, were fully represented both in the Latin and in the Greek languages. Later, teachers of architecture, mathematics, and mechanics were appointed by the emperors, — at least by Alexander Severus. These lines of instruction represented the entire work of the university; in them all there was nothing in the way of investigation or of creative speculation. All instruction consisted in formal discipline such as was given in the lower schools or in the mere exposition of the subject as organized by the Greeks.

While the grammar and rhetorical schools were distributed over the provinces, the same cannot be said of the universities. Aside from the Greek centers of culture, all of which were in the East except Massilia (the modern Marseilles), there were no universities under the Roman régime. The establishment of such libraries in provincial towns was at least an occasional occurrence. In several of the epistles (*e.g.* Bk. 1, Ep. 8) of Pliny the Younger, the establishment of such libraries is described with a provision of a peculiarly modern flavor, — that the gift is to be made if the locality will grant an annual support for the maintenance of scholarships or for the use and care of the library.

Support of Schools by the Empire. — While during imperial times the number of schools increased to such an extent that scarcely a provincial town was without its grammar school, yet it can hardly be said that a system of schools existed: there was no governmental oversight of these schools; there was no compulsion in their establishment; there was no

uniformity in their character. But from the fact that the government, both imperial and municipal, came to the support of these schools, many of them lost their private character and in that sense may be said to have constituted a system.

The custom described by Suetonius as introduced by Vespasian, of the payment of salaries of grammarians and rhetoricians from the imperial treasury, had developed the University of Rome. Hadrian and some of the later emperors extended their benefactions. But it was Antoninus Pius (138–161 A.D.) who was the first to systematize this encouragement of education. He extended to grammarians, rhetoricians, philosophers many of the privileges of the senatorial class and exempted them from many of the burdensome obligations of the curiales in regard to the payment of municipal taxes, the support of the soldiery, the obligation of military service, etc. As these measures offered but one more opportunity to escape from the oppressed ranks of Roman citizenship, so many attempted to avail themselves of these privileges that restrictions were soon imposed. By these only a few were allowed such privileges. The number varied from five grammarians and sophists or rhetors in the provincial capital to three of each in the smaller cities. Under Constantine and later emperors these privileges became the basis of the special privileges conferred upon the Christian clergy. Constantine, in edicts of 321, 326, 333, reaffirmed all the previous enactments regarding teachers and extended their privileges. Exempted from nearly all the burdens of both imperial and municipal character, from all the obligations of the curiales, they were yet permitted to accept the curial magistracies and the highest honors. They and their families were even made sacred in their persons, and all outrages or offenses against them were most severely punished. The emperor Gratian took one step further and, in the case of many communities,

though it never became universal, duplicated the amount contributed from the municipal treasuries for the support of schools. For the most part, however, the support of schools remained a charge upon the municipalities. The same emperor in 376 established a fixed schedule for teachers throughout the empire; rhetors in large towns were to receive twenty-four *annonæ*,[1] and grammarians half that sum. While the professional chairs in these schools were filled for the most part through election by the municipal government — though some were appointed direct by the emperors — the Emperor Julian asserted the right to pass upon all appointments and delegated officers to perform this service for him. The object of this law, coming as it did from the apostate emperor, was to eliminate Christian teachers from these schools. In 425 the nearest approach to an imperial system was made by the emperors Theodosius and Valentinian, who made the government the sole authority in the establishment of schools and declared any attempt to found a school by a private party to be a penal offense.

Educational Writers during the Imperial Period. — Having no thought of the connection between school education and the general welfare of the state, recognizing no connection between its fundamental principles and problems and those of the science of ethics, and seeing no intimate connection between its functions and the general morality of social life, the educational writings of the Romans possess none of that permanent value found in those of the Greeks. For the most part our information concerning the education of the Romans is drawn from brief references scattered throughout the literature, beginning with Plautus, and including among those of the first century and a quarter of the Christian era, Horace, Martial, Juvenal, Seneca, Suetonius, Tacitus, Pliny, and Marcus Aurelius.

Seneca is the one writer whose point of view would be

[1] *Annona*, the yearly allowance of a common soldier.

likely to approximate most nearly that of the Greeks. It is true that he considers education to be in close contact with life, but he has little to suggest except stray observations, full of truth and still often quoted, but offering no underlying principles of education. Among his famous maxims are these: "We should learn for life not for school;" "We best learn by teaching;" "The result is gained sooner by example than by precept."

Cicero in his *de Oratore*, Tacitus in his *de Oratoribus*, Quintilian in his *de Institutione Oratoria*, all discuss the rhetorical education and the orator as the ideal of the educated man. All agree in considering the orator as the educated man who puts his intelligence and his learning to practical use; all agree that the orator as a type is higher than the philosopher because inclusive of him; all agree that the orator should have a knowledge of the preliminary sciences — of practically the entire realm of knowledge; all agree that the orator should be primarily the good man.

Quintilian's *Institutes of Oratory* is the only practical exposition of the entire field of education, given to us by a Roman, and the first scientific statement of the problems of education, in the narrower use of the word. Besides treating of the necessary preliminary studies, the qualifications of the orator, and the methods of grammatical and rhetorical study, as previously indicated, it deals also with a great number of practical educational problems. In a long argument Quintilian shows the superiority of public school education over private tutorial education; he condemns the use of physical force and emphasizes the necessity of making studies attractive; he points out the proper attitude of the teacher to the pupil; he emphasizes the fact that different natures demand different treatment and urges the study of the dispositions of the pupils by the teachers; and he indicates the importance of the selection of teachers and the qualifications they should possess. The greater part of his work, consisting as now

published of two very substantial volumes, is devoted to an exposition of method, — from the learning of the alphabet to the study of philosophy, — and an analysis of the content of literature. Though this contains the methods of the best Roman schools and was considered the standard text in the practical guidance of the teacher throughout the subsequent centuries of the Roman culture and in the centuries of the later Renaissance, only this enumeration of the general topics discussed can be undertaken here.[1]

Quintilian was not only the most prominent writer on education but the most successful of Roman teachers. He was among the rhetors first subsidized by Vespasian and was given the highest marks of esteem by his contemporaries. Though he acquired great wealth through his teaching, he did not claim that he possessed great originality but rather that in his practices, as later in his writings, he summed up the best results of the work of his predecessors. For this reason his treatise deserves attention as a summary of actual conditions; yet of conditions at their best.

Fourth Period. Decline of Roman Education. — There can be no definite dates fixed for the delimitation of this period. Tacitus, writing in 79 A.D., complained in most bitter terms of the decadence of education. Yet this was the very period when Quintilian was teaching and when the emperors were beginning their policy of fostering education. It is probable that the greater formality and artificiality of the education of this time, which from one point of view was a perfecting process, was to Tacitus a decline. The substitution of this training in the rhetorical "circus," as he termed it, for the old training in broad citizenship was undoubtedly a decline; but in respect to literary education he probably wrote in the period of its greatest excellence. The decadence in literary quality and in the

[1] For selections of those portions that relate to education in the school, see Monroe's *Source Book of the History of Education for the Greek and Roman Period*, Pt. II, Ch. VII.

intrinsic merit of this grammatical and rhetorical training did not come until the later part of the third or the early part of the fourth century. Even then this decay was not marked by any especial peculiarities or set off by any particular events. The educational conditions formed simply a part of that decadence of Roman society that constituted the essential feature of the later centuries of the empire. A brief statement of some of its characteristics as they affected education is here desirable.

The Decay of Roman Society. — Though the Emperor Caracalla in 212 had conferred Roman citizenship upon all free citizens of the empire, this distinction — ceasing to be an honor highly prized — had now become a badge of servitude little better than slavery. Upon the curiales, or free citizens, fell all the burden of the support of the municipal government, with its maintenance of the army and much of the support of the imperial government. The legislation of the empire, formerly directed largely to the definition of the rights of the freeman and of the privileges of property, was now largely devoted to the prevention of the escape of the curial from his inherited honor, — the freedom of the empire. Attempting to escape these insupportable obligations and oppressions, he sought relief in the army, among the ranks of the barbarian hordes, among the ranks of the serfs upon the senatorial estates, in the monasteries of the Church — and from each he was sought out by the imperial officers. The greatest punishment that could be inflicted for this or any other offense was the degradation to his original position as a curial, — a free Roman citizen, — since when so enforced he had again to go through all the years of governmental servitude that might in the end afford his escape into the privileged classes. To many the profession of teaching offered a means of escape — as to the great Augustine himself; to others the clerical office of the Christian Church offered a similar escape, for at this time the great privileges

of the Church originated. Many found escape only in complete renunciation of all these goods or in suicide. Thus low had sunk that privilege which a few centuries earlier had been considered the greatest boon to be acquired by man.

Whence had come this decline? It is not far to seek. A monarchy that had centralized into an absolute despotism with perfect machinery for carrying out its will and extracting the wealth of the people; an official class corrupt beyond measure and openly defiant of imperial authority; a judiciary open to bribery; a horde of military officers that exacted both taxes and provender in kind for the support of a huge standing army, and whose will was law even with the emperors; tax officials that not only oppressed but defrauded the curiales, so that often the assessments had to be paid twice or thrice over; and, above all, an aristocracy, large in number, supremely selfish, extravagant, corrupt in all financial and economic dealings, and, so far as the Italian and African provinces were concerned, immoral beyond description and everywhere indifferent to the needs and the rights of the common people, — such were the causes of this decline. In a word, the decay of Rome was primarily political and economic. So flagrant were these abuses that the emperors frequently suspended the collection of supplies from entire districts, exempted whole provinces from taxation, or even in some instances suspended in a province the right of collection of legal private debts. Between these millstones of extortion and exemption the middle class was ground: the rural classes became less and less numerous, until a large portion of the Italian lands was depopulated; those remaining had to bear the increased burden and hence became poorer and poorer.

On the other hand, the senatorial class, who now possessed no senatorial functions and of whom but a small portion ever saw the city of Rome, was augmented by great numbers that through bribery, through favoritism of imperial officers, through performance of the multitudinous obligations placed

upon the curiales, through some official service or through inheritance, acquired this privilege. Having lost all of the old Roman patriotism, this class took little or no part in the work of the mercenary army and showed little interest in the wrongs and the sufferings of their less fortunate neighbors, but devoted their lives to ease and enjoyment, the pursuits of the higher pleasures, including literature and the intellectual enjoyments, or to self-indulgence and debauchery. Such education as flourished was for the satisfaction or the adornment of this class of society alone.

The moral condition of society needs hardly to be mentioned; it certainly cannot be adequately described. Immense wealth, easily and dishonestly gained, with few obligations; great political power and privileges, with few duties; no common standards of moral conduct, no respected religion, — these conditions state the situation. In place of the old Roman virtues, some centuries of self-indulgence and license in the imperial circles had been followed by a similar course of life on the part of the upper classes and in almost all portions of the empire. The numerous Eastern religions had added a religious sanction to every tendency to vice and even to indulgence in the most depraved tastes of human nature. Such religious celebrations as in their earlier form had at least the merit of naturalness, simplicity, and æsthetic form, degenerated into debauchery. As is to be noticed later, even the Christian Church tended to decline to the common standard rather than attempted to elevate mankind. As in the case of Grecian culture and Roman power, so here it seemed that Roman lust was to take captive its pure conqueror, the Christian Church.

The empire which the barbarians crushed was but a shell. Its downfall does not need to be explained as due to the undermining of patriotism and of devotion to the empire by the Christian religion. Save in a few notable and worthy leaders the general indifference was more marked with the

pagan aristocracy than with the leaders of the Christian Church The task remains to indicate briefly the education of this decadent society.

The Education of the last Centuries of the Empire. — Subsequent to the opening of the fourth Christian century, the most important contributions to Roman literature were made by representatives of the Christian Church rather than by representatives of the old pagan culture; hence an important phase of the education of this period is treated of in the chapter following. The fact that much of the intellectual strength and all new interest and inspiration were drawn into the Christian Church explains to a large extent the character of education in these later centuries of the empire. In this period also the provinces held a more prominent position than did Rome itself. In fact after the removal of the capital from Rome by Diocletian (285–305) Rome ceased to hold the importance it had previously had, until the growth of the Christian Church a few centuries later again made it the center of power. The education we have to consider in this section, then, is that of the old pagan society in its declining years.

Structurally this education has been described under previous periods, for grammatical and rhetorical schools spread all over the empire. These schools flourished, especially in Gaul, but also in Spain and the African provinces. At Marseilles, said at that time to surpass Athens, at Autun, at Treves, now made the abode of emperors, at Lyons, Arles, Auvergne, Vienna, Narbonne, and, above all, at Bordeaux, grew up very notable schools which, even in the centuries of darkness which followed the destruction of Roman society, refused to give up their traditions of classical culture. Until this destruction by the barbarians actually took place, in the sixth and seventh centuries, there was no decline in the institutional side of this education.

The limitation which most characterizes the decline is the

fact that this education is for the upper class only. This education is now to be judged not as the practical training of a whole people, but as an adornment to a hollow, superficial, usually corrupt society; not as the expression of the highest aims in life, but as a dilettante interest, more often still, as an affectation; not as a stage of development possible for an entire people, or at least for individuals of any rank, but as an attainment or even badge of distinction of a favored class. In this condition it continues to flourish for several centuries. As the old political power and opportunity for political activity disappeared, as the municipal government became mere machinery for collecting taxes, as the army became filled with barbarians, the upper class, — the Roman nobility, — now more numerous than ever, turned to the one remaining feature of early imperial Rome, — its culture.

It has been noted that all originality departed from Roman literature with the "Silver Age." After Tacitus (55–120 A.D.), there were no writers of first rank; after Suetonius (75–160 A.D.), there were few of second rank. But with the decline in thought content, more and more importance was attached to form. A perfection of artificial form foreign in spirit to the earlier "Golden Age" was striven for and attained. Form became everything. Virgil and Horace yet ruled as masters — not as masters of poetic thought and taste, but rather as masters of grammatical construction, of choice of words, of style. Esteemed along with this perfection of form there was a dilettant erudition, which commended the study of the poets as the sources of apt phrase and of the philosophers as a treasury of obscure allusion. The possession of this debased culture now became the one remaining distinction of the senatorial class, prized as were their wealth and their birthrights. Its possession by any person was a mark of social superiority and the most certain means of advancement in the imperial service or in the provincial courts. The character of this social life is reflected

in the literature and the learning of the times. Servility and flattery reigned in the places of the great; they in turn prostrated themselves in Oriental style before the emperors, who continued in Christian times to employ the titles of deity, though no longer daring to demand the worship implied. So, too, there prevailed in literature abject imitation, subjection of all thought to mere propriety of form, absence of all originality either of thought or style. An age in which schools flourished as never before in earlier periods of Roman education, in which the writer and the teacher were esteemed and rewarded as never before, an age with all the paraphernalia of culture, it was yet one in which education did not interest or benefit the people or society at large, — one whose show of erudition and mastery of pedantic literary form did but make it an object of wonder or of ridicule to subsequent ages.

These centuries were not without many minor writers of merit, and able systematizers, especially grammarians. This is especially true of the fourth century. Then Donatus (about 400) in the West and Priscian (about 500) in the East perfected the grammatical analysis of the language in text-books that were to remain the basis of linguistic study and hence of education until the sixteenth century. Grammarians and rhetoricians had never been held so high in esteem. Rhetoricians had followed the conquering Roman armies into Gaul, as do traders a modern conquest, and had gained a hold upon the Romanized Celtic civilization that rendered possible the survival of this culture in that province after it had disappeared elsewhere. With the recrudescence of paganism under the apostate Emperor Julian (361–363) — a revival in itself largely inspired in the schools — there occurred a revival of the classical culture and of schools that is spoken of by historians as a distinct renaissance of learning. Because this centered largely in the revival of the influence of Platonism and of the school of Alexandria, it was largely Hellenic in

character. As has been noted under the preceding topic, the Christian emperors continued their patronage of learning. The Emperor Gratian, who did so much for education, exalted his former tutor Ausonius (about 310 to about 393), who had been a teacher for thirty years, to the prefecture of Gaul, and his son to the prefecture of Italy. After a long and distinguished service Ausonius returned to the student life and through his example added materially to the esteem in which the teaching profession and the literary life was held in the fourth and fifth centuries. His pupil, Paulinus, also a grammarian and poet, was made consul and governor of a province; and another pupil, Symmachus, even more noted as a rhetorician and poet, was made consul and prefect at Rome. What the family of Ausonius did for this exaltation of learning was approximated in many more modest circles by rhetoricians, grammarians, and poets.

Thus the pagan culture, though but the form without the essence, retained its hold upon the educated classes until the destruction of Roman society by the barbarians in the sixth century. While most of this senatorial class, including men like Ausonius, were nominally Christian, at heart and in their philosophy of life they were really pagan in the best Roman form of paganism. With alarm and disdain they witnessed the desertion of friends to the more extreme form of Christian views then advocated by the devotees of the monastic life. The monastic ideal was in truth the complete negation of the pagan view of life, as the nominal life in the Christian Church had ceased to be.

One further characteristic of the educational activity of these centuries needs to be noted, — the work of the schools. One peculiar feature of these later revivals of classical learning had been the growth of a class of wandering lecturers, similar to the early sophists of Greece. The sophists of this period, however, excelled merely in formal speech, not professing to instruct so much as to entertain. Describing this, to us

almost incomprehensible laudation of a speaker whose ability was only that of bombastic superficiality, Professor Dill remarks: —

"If he was a man of reputation in his art, people rushed to hear him declaim, as they will do in our times to hear a great singer, or actor, or popular preacher. Provincial governors, on a progress through a district, would relieve the tedium of official duties by commanding a display of word-fence or declamation by such a master as Proaeresius, reward him with the most ecstatic applause and conduct him home in state after the performance. . . . In the last years of the fourth century, at a time of great events and momentous changes, Symmachus, when writing to Ausonius, finds the only interesting subject at hand to be a rhetorical display which a rhetorician named Palladius had just given at a fashionable gathering; and words almost fail to express the admiration of that ordinarily calm and dignified senator for the performance. It is singular that a man, who could himself speak with great effect on a serious occasion in the senate, or before the Emperor, should be so carried away by an unreal exhibition of school rhetoric. But the fact remains that this power of using words for mere pleasurable effect, on the most trivial or the most extravagantly absurd themes, was for many ages in both west and east, esteemed the highest proof of talent and cultivation."

Such being the ideal, it is not to be wondered that the work of the schools was of the most formal, artificial and, so far as any real social value is concerned, ineffectual character. The study of philosophy had disappeared altogether from the schools and found but few devotees among the cultured, and here, too, merely for a show of learning. Except in Rome, even law attracted but slight attention in these Western schools; in the school at Bordeaux, the most prominent during these later centuries of all these schools of the empire, only grammar and rhetoric were taught. Grammar, it is true, included literary appreciation and study of content as well as form; and the most prominent grammarians, as

evidenced by some of the more important works of the times, possessed a knowledge of all the preliminary sciences demanded of the orator by Quintilian. For the most part, however, this learning was mere antiquarianism and degenerated as did the literature of the times into mere trifling. The study of Vergil so dominated in these schools, that here was laid the foundation of the practice of the Middle Ages of identifying all classical learning with the cult of Vergil. But it was rather Vergil analyzed and dissected, than Vergil appreciated and enjoyed.

If this was the degenerate state of the study of grammar and literature, that of rhetoric was even worse. No longer connected with real life, in the school or out, no longer a public function in the courts, senate, or curial assemblies, it had degenerated into a mere display in the theater, in the school, or before the private audience. As an art it depended upon an abundant vocabulary, a glibness of tongue, and the mastery of the mannerisms of the stage. Like the older sophists these later rhetoricians boasted their ability to speak with equal effectiveness on either side of any proposition and aspired but to clothe the most common event in gorgeous verbiage, or to dress out a trivial or hackneyed thought in the greatest variety of ways.

Such ideals of culture stopped all progress. If the Hellenized Roman education ever possessed any of the liberalizing tendencies that it did with the Greeks, it had long since lost all of them. The practical merits of Roman education had disappeared quite as completely. Down to the close of the sixth century these schools existed throughout the European provinces and gave to the early Church in that region a formal training in the culture of pagan society. This service was performed for provincial converts and even for the youth of the early Teutonic invaders, especially those of the Goths who remained permanently on the soil of Gaul. Such instances, however, were so infrequent as to be of little effect,

and the schools, unable to stand the evils of indifference and barbarian hostility as well as of hollow formality, became extinct.

Such being the character of the pagan culture in its senility, let us turn to a consideration of Christian culture in its infancy.

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TOPICAL QUESTIONS FOR FURTHER STUDY

1. What contrasts are offered between the concrete virtues of the Roman ideal and those of the Greek, as indicated in their early literature?
2. To what extent does Roman education indicate the value of biography in education?
3. To what extent does Roman education illustrate the function and the importance of the parent in education?
4. What is the difference between the Roman and the Greek use of gymnastics in education?
5. Was the conception of an orator, as expounded by Cicero, Tacitus, and Quintilian, a sufficiently broad educational ideal for society in the imperial period?
6. What concrete details concerning the work of the rhetorical schools can be found in the writings of these same authors?

7. To what extent did the adopted use of the Greek literary education afford to the Romans a liberal education, after the Greek idea?

8. To what extent is the old Roman education described in the first chapter of the *Thoughts* of Marcus Aurelius Antoninus?

9. To what extent do present practices and beliefs justify Quintilian's views concerning methods of teaching reading, methods of studying grammar and literature, and his conception of the nature and educational function of these two subjects?

POLITICAL EVENTS	WRITERS, SCHOOLMEN, ETC.	CHURCHMEN AND ECCLESIASTICAL EVENTS	EDUCATIONAL WRITINGS	EDUCATIONAL EVENTS
"Fall" of Rome . . . 476 Odoacer . . . 476 Theodoric . . 493 Tothila . 541–542 Justinian . . 527 The empire reunited . . 565 Arab conquest of Spain . . 714 Karl Martel defeats Saracens . . 732 Carolingian line 752 End of Lombard kingdom . . 774 Charlemagne 772–814	Boethius *c.* 480–524 Cassiodorus *c.* 480–575 Gregory of Tours *c.* 538–594 Isidore of Seville *c.* 570–636 Venerable Bede . . 673–735 Alcuin . . 735–804 Paulus Diaconus 725–797	St. Benedict 480–543 Franks converted . . 496 Gregory I *c.* 540–604 Mohammed *b.* 572 Columban . 540–615 Hegira of Mohammed . 622 Conference at Whitby . . 664 Boniface converts the Germans 721–754 Last council recognized by Eastern and Western churches . . 787 Leo III . 795–817	Benedict's *Rules* Boethius, *Consolations, Translations of Aristotle.* Cassiodorus, *Institutes of Sacred Literature* Gregory of Tours, *Chron.* Isidore, *Etymologies* Bede, *Chron.* Alcuin, *On Seven Liberal Arts*, etc.	Monte Cassino founded . . 529 Cassiodorus founds monastery . 540 Christian era first used for dating . . . 526 St. Gall founded 614 Reichenau f. . 724 Fulda founded . 744 Alcuin called to Frankland . 781 Karl's *Capitularies* on ed. 787 *et seq.* Alcuin, Abbot of Tours . 794–804
800 A.D.				
Carolingian Empire founded . . 800 Charles the Bald . 840–877 Treaty Verdun 843 Alfred . 871–901 Henry of Saxony 919–936 Otho . . 936–973 Holy Roman Empire founded 962 Otho III . 996–1002 Caliphate of Cordova 929–1031 Capetian line . 987 Norman conq. 1066 Canossa . . 1077	Einhard . 770–840 Rabanus Maurus . 776–856 John Scotus 810 875 Walafred Strabo . 809–849 Avicenna 980–1037 Anselm . 1033–1109 Roscellinus *c.* 1050–1121	Conversion of Saxons . . . 804 Separation of Eastern and Western churches . . 822 Clugny founded 910 First Crusade 1095 Sylvester II (Gerbert) 999–1003 Cistercians founded . 1098 Knights of St. John founded . 1099	Rabanus Maurus, *Education of the Clergy* Walafred Strabo, *Biography* Anselm and Roscellinus begin scholastic controversy	Division of Monastic Schools into interns and externs . . 817 Hirschau founded . . 830 Oath of Strassburg, earliest form of German and French language . . 841 Salerno . fl. *c.* 1050 Anselm, Abbot of Canterbury 1093 1109
1100 A.D.				
Consular government in Italian cities . fl. 1100 Arnold of Brescia 1100–1155 Frederick Barbarossa 1152–1190 Henry II of England 1154–84 Philip II of France 1180–1223 Treaty of Constance 1183 Fall of Constantinople to Crusaders 1204 Frederick II 1208–1250 Magna Charta 1215 End of Hohenstaufen line 1254 Louis IX of France 1226–70 Latin Empire in East falls . 1261 Hapsburg line begins . . 1273 Model Parliament 1295	Bernard . *d.* 1153 Abelard 1079–1142 Hugo St. Victor *c.* 1097–1142 Richard St. Victor *d.* 1173 John of Salisbury . 1110–1180 Peter of Blois 1135–1204 Albertus Magnus 1193–1280 Walter Map *c.* 1140–1210 Averroës 1126–1198 Alex. Hales *d.* 1245 Grosseteste 1175–1253 Bonaventura 1221–1274 Th Aquinas 1221 74 Walter von der Vogelweide fl. 1230 Alexander de Villedieu . . *d.* 1240 Vincent de Beauvais *d.* 1264 Roger Bacon 1214–1294 Raymond Lull 1235 1315	Knights Templars founded . 1119 Second Crusade 1147 Murder of à Becket . 1170 Innocent III 1198–1216 Peter the Venerable *d.* 1156 Albigensian Crusade . 1208 Franciscans founded . 1210 Dominicans founded . 1215 Crusade of St. Louis . 1270 Christians expelled from Palestine . 1291 Boniface 1294–1303	Abelard, *Sic et Non*, etc. Hugo of St. Victor, *On Instruction* John of Salisbury, *Metalogicus* Walter Map, *Latin Students' Songs* Alexander de Villedieu, *Grammar*	Irnerius at Bologna . 1113 Trans. from Arabic under Raymond of Toledo 1130–1150 U. of Paris . *c.* 1160 Aristotle's *Physics* proscribed at Paris . . 1210 *Metaphysics* proscribed . 1215 Frederick II sends trans. of Aris. to Bol. and Paris 1220 Niebelungenlied *c.* 1220 Epic poetry in Ger. and France *c.* 1200–1250 Dominicans at Paris . . 1217 Franciscans at Paris . . 1230 U. of Padua . 1222 U. of Naples . 1224 U. of Salamanca 1243 U. Col. Oxford 1249 Peterhouse, Cambridge 1284 Aristotle again stud. at Paris . 1255
1300 A.D.				

CHAPTER V

MIDDLE AGES: EDUCATION AS DISCIPLINE

§ I. EARLY CHRISTIAN EDUCATION

CHRISTIANITY IN CONTACT WITH THE WORLD OF THOUGHT. — In order to understand the attitude of the early Church to education, and the conception of education that developed from these early conditions and prevailed throughout the Middle Ages, it is necessary to have in mind some of the characteristics of the thought life and of the concrete social activities of the pagan life surrounding the early Church. Into the life of Greek culture and intellectual activity of the cosmopolitan period, modified, supplemented, and extended as it had been through adoption by the Romans, and into the life of Roman activity at its height of power, though past its prime in vigor and positive virtues, Christianity was introduced in the first century, to spread with great rapidity, to modify this foreign world both in regard to thought and to conduct, and, on the other hand, to be itself profoundly modified as well.

The Greek mind had developed a versatility that probably has never been equaled, a power of dealing with abstract thought and an interest in philosophical questions that is as remote from the interests of society at large to-day as it was in ages preceding the time under consideration. Schools were very numerous and flourishing in both the East and the West; culture had never been so disseminated, nor the intellectual life so fostered. In very many points indeed, it can be shown

that Christianity was influenced and modified by this solvent of Greek thought. These changes are, however, of more interest in Church history; here only a few points of contact can be indicated as of vital importance in the history of education.

Christian vs. Greek Solution of the Problem of the Individual and Society.—The highest reach of pagan thought, its solution of the problem of the individual and society, was in the thought of Aristotle that found the perfection of the one and conserved the welfare of the many in well being and well doing (pp. 148–150). The solutions offered by Plato, Aristotle, and by the various schools of thought found their ideals in the intellectual nature of man and were necessarily aristocratic since possible only to the few. Opposed to this, Christianity offered its solution found in the moral nature of man which, since it is common to all alike, was universal in its application. It was in no ideal of immediate happiness or of any activity of the rational nature that Christianity discovered its solution of the world problem. It was in the idea of Christian charity or love,—that expression of personality which is most individual and most complete, and which at the same time from its very nature finds its expression in objects or personalities external to itself. Thus in the moral nature, which pagan religion had so slightly affected and which Greek philosophy had but dimly apprehended, a new basis of life was found and a new solution of the fundamental educational as well as ethical problem was secured. However different in its solution, the problem stated and the general principle sought were so identified with that of the highest thought of the pagan schools that a community of interest was immediately discovered, and a fusion of Greek philosophical thought and Christian teaching was attempted. The unknown god that the Apostle declared unto the Athenians was but a symbol of this declaration of the hitherto unknown truth for which the Greek thinkers for generations had been groping.

Points of Conflict between Greek and Christian Thought. — Though there was this one point of contact of fundamental importance, there were divergencies too great to be bridged without compromises on both sides. The intellectual and æsthetic elements so essential to the Greek ideal, were wholly wanting in the opinions of the early Christian teachers. This led to an indifference on the part of the Christians to those features and characteristics of the Greek and the Greco-Roman education and culture. Further strengthened by the fact that Christianity offered the greatest boon to classes wholly neglected in the economy of pagan society and Grecian culture, and by the additional fact that paganism found its strongest intrenchment for resistance against conquest by the new religion in its literature, its culture, and its schools, there grew up in time a general hostility between Hellenistic culture and Christianity that had not at first been evident. Especially when the old culture had degenerated into a mere form without the vivifying principle of the real search for truth that had characterized the early Greek philosophers or the later Stoics at Rome, Hellenism became identified with paganism.

Influence of Greek Thought upon Christianity. — The extent to which Christianity was influenced in its thought life by Grecian intellectualism is evidenced by the growth of heresies, — many of which were attempts to interpret Christian teachings in the light of the varying schools of Greek philosophy, — and in the formation of the orthodox Christian creed as well. Contrasting the Sermon on the Mount with the Nicene Creed (A.D. 325) one sees at a glance the difference between Christianity in Semitic form, and Christianity when cast in Grecian mold. This influence of the Grecian thought world on early Christianity can be seen in various aspects. Contrast, for instance, the methods of teaching. In the Grecian schools the method was that of formal selection of a theme or texts from the teaching of a philosophical

school, of logical analysis, of careful choice of words, of discrimination in phrases and fine shades of meaning, and of formal delivery; the method of the Hebrew synagogue was that of informal comment and exposition; the method of instruction of the early Christian Church was that of prophesying or impromptu exposition and exhortation. In a similar manner the allegorical method of interpretation so long in vogue among the Greek philosophers in the explanation of their literature, whereby trivial, irrational, or immoral acts were given a moral or rational meaning, was adopted by the Jews, under the leadership of Philo, in the justification of the Old Testament to Greek thought. Finally this same method was adopted by the Christian teachers, and the Church subsequently imposed these interpretations upon coming generations as a test of orthodoxy.

Influence of Roman Thought. — The point of contact between Christianity and the Roman thought world was found in its relation to the Stoic philosophy. Peculiarly appropriate to the Roman character, and prepared for by all of their early historic experience, the Stoic philosophy, as formulated by a few leading exponents among the Romans and held by a large and saving element among the better members of society, expressed the highest attainment in moral thought reached by the ancients. According to this philosophy, virtue in itself was made the highest pleasure attainable. Conscience was exalted into the rule of life; good deeds, charity, and sympathy for the less fortunate were commanded not on the score of ostentation or for the approval of man, but because such actions were a duty. Duty, in its legal, institutional, and parental form had always been exalted by the Romans as the highest expression of their moral life; they now found in the philosophical formulation of this ethical truth the highest expression of their cosmopolitan life and of their world empire. This represents the perfection of pagan philosophy in its ethical bearing. Conscience was deified into the sole

arbiter of life; for in the Stoic philosophy of the Romans, though it was otherwise with earlier teachings of the Grecian Stoics, there is no firm belief in a life after death, and little attempt to connect the duties of this life with any rewards and punishments in the hereafter. Says one of these teachers: "The wise man will not sin, though both gods and men should overlook the deed, for it is not through the fear of punishment or of shame that he abstains from sin. It is from the desire and obligation of what is just and good."

It is a striking fact that as it nears the period of the ascendency of Christianity, pagan philosophy, as illustrated by Seneca, Epictetus, and Marcus Aurelius, directs its attention more and more to the attempt to influence the conduct of men through ethical teachings, in recognition of the fact that this was the supreme need of the time. In this, again, Christianity had one great feature in common with the thought life of the times. Yet the differences here were very great. Both aimed to regulate the life of society, or at least the daily conduct of the individual, so as to secure the happiness, immediate or ultimate, of the individual and the security and stability of society. But while it aimed at the regeneration of society, philosophy could affect only a few. Attached, as they were, to the great families of Rome in the capacity of moral advisers, the minor Stoics would seem to be in a position to exercise an influence, great though limited to a class. Their position, however, was little above that of a menial one; for the patronage extended to them was quite as much an ostentatious display of power as was that shown to the court scholar during the Renaissance, while the ease and influence attaching to the position called forth a great number of impostors, greedy of wealth and given over to the gratification of every whim and passion.

Limitations of Stoicism and Other Pagan Philosophies. — The reason for the slight extent of the influence of Stoicism compared with that of Christianity is to be seen on the very

surface. Both exalted virtue; but while virtue to the Stoic was to be obtained only through the development of reason, Christianity would obtain the same result through the emotional nature. The virtue of the Stoics could be obtained only by the few in whom the intellect was developed and the rational nature controlled; Christianity rendered the attainment to virtue a possibility for all. It appealed to emotions that were universal; to that which was noble, to the affection for an ideal human character that in itself is an expression of the divine, to sympathy for fellow-men, to fear of eternal retribution, and to the entire gamut of human feelings.

This limitation of Stoicism was a limitation of all ancient philosophy. The quotation given on page 152 shows that even Aristotle clearly recognized this fact in his own philosophy. The appeal of Stoicism could be made only to minds already noble. It affected but a limited few in society, and those of the best. However nearly its ethical teachings approximated Christianity, there was no similarity in the extent of its influence, and hence in its educational character. The ancient philosophy did very little to improve mankind, to regenerate the society of the times. Unless, as in the impossible scheme of Plato, philosophers should be kings, it could do nothing to check vice among men and evil in society.

If philosophy did little to check vice and gave an ethical creed to but the intellectual few, the religion of pagan society did far less to effect any moral improvement in life. As a matter of fact, the religions of the ancients had little influence on morality. The grosser forms of Asiatic religions were but the cloaking of every human instinct and passion, even the grossest, under the guise of worship. That of the Greeks was a refinement upon these through its clothing of æsthetic form and later through its content of philosophical truth. But the polytheism of the Greeks had long ceased to have any influence on the lives of thinking men;

among the multitude it was little less than a subject for jeering. The ethical teachings of the Greeks were embodied in the writings of the dramatists and the philosophers. Of the latter, Plato most conspicuously took a position of open hostility to the Homeric and other early poetry embodying their mythology. The later philosophers inclined, on the one hand with the Epicureans, to the view that the gods were wholly indifferent to human affairs; and on the other with the Stoics, to the making of a clear distinction between the popular gods of their mythology and the one god of nature, possessing personality and exercising a providential care over man. The old Roman religion had fostered many social and individual virtues, which in this latter period, however, had lost all of this beneficial influence save on activities of a political and legal nature. As the Roman religion culminated in the deification of the emperors, who more often than not were the very embodiment of vice, the absurdity of this political religion became apparent to all. Though the religion of divination and of oracles persisted until after the conversion of the empire, it had long been scoffed at as mere fabrications for the unintelligent. Even as early as the second century B.C., Cato had wondered that two augurs could meet with sober countenances. Neither religions nor philosophies had taught any doctrines concerning the future life, and consequently had no means of enforcing any moral teaching upon the unintelligent masses.

Effects of Christianity upon the Thought Life. — The contact of Christianity with this thought world had great results. Religion became disassociated from the state and ethics from philosophy: in religion, ethics and morality were given a new basis and a hold, altogether unprecedented, upon the masses of mankind. With this reassociation of religion, ethics, and politics, there came other readjustments of vital interest to education. Religion lost its previous relationship to æsthetic culture and to literature, philosophy its intimate

connection with the practical life through ethics. For many centuries education took upon itself a moral and religious character to the neglect of the æsthetic and intellectual phases so essential to the education of the classical world.

CONTACT OF CHRISTIANITY WITH THE WORLD OF ACTION. — Some of the leading political and moral characteristics of Roman imperial society, as these bore upon the formation of classes and the determination of the nature of the education of the upper class, have already been noticed (pp. 209–212). There remain to be mentioned a few more striking moral characteristics of all classes of society of both the Eastern and Western Empire, of both the Greek and the Roman, that reveal by contrast the nature and value of the early Christian education.

The virtues of the Greeks and Romans were largely civic. In all stages of their history the types of virtue held highest in general estimate were those of patriotism, bravery, and of service of any kind to the state. The personal virtues of sympathy for the unfortunate, of regard for fellow-man, of charity, were seldom dwelt upon and never very highly regarded. Now with the imperial period, as previously noted, even these civic virtues rapidly disappear. The emperor assumes to himself and his subordinates all power; even municipal government disappears save as a machinery for tax gathering, and there is no demand upon the individual citizen for political services or opportunity for such activity other than through personal abasement to an absolute and irresponsible power. The army is filled with mercenaries, and the old Roman bravery, dignity, and sobriety give way to love of ease, to indulgence, and to sensuality. Consider what must have been the results.

This large free population had for generations come to look upon themselves as the lords of the earth. They now had few political and military obligations or opportunities for

activity; they were shut out from all mercantile and industrial pursuits by the immense class of slaves; they were supplied at Rome and the immediate vicinity with all necessities by the lavish distribution of food and even of money by the emperors. Their religion offered no restraint to their vices and no belief in a future life that would bring retribution or reward for conduct in this: on the contrary, it furnished occasions for the grossest scenes of public sensuality. They had before them a court and an aristocracy often given to unimaginable excesses and debauchery. The theater furnished amusements which had little resemblance in their degeneracy even to those of the present time which are most reprehensible; and in public spectacles thousands of their fellow-men and of animals were slain amid all the refinements of cruelty and bloodthirstiness. One of the most difficult features of Roman society to comprehend is the importance and the extent of these gladiatorial shows. They met with little condemnation from even the moralists of the times, and practically the only restrictions placed upon them by the empire were the prevention of the enrollment of senators among the gladiatorial class, and the prohibition of the slaughter of an excessive number of men, though that at the accession of Trajan more than ten thousand men thus fought for public amusement was not considered excessive. The most refined women of the period were devoted to these public spectacles; even women descended to fight in the circus; there were connoisseurs in the expressions of men dying in torture; at private banquets men were torn to pieces by wild beasts for the entertainment of guests. It was said of one of the emperors that he "never supped without human blood." These facts indicate how decadent beyond all modern standards was this society; how impossible it is for us now to comprehend those times; and also what was the task before the new Christian education.

Tacitus said of imperial society, even in his own times,

"Virtue is the sentence of death;" and Mr. Lecky, commenting on this statement says, "In no period had brute force more completely triumphed, in none was the thirst for material advantages more intense, in very few was vice more ostentatiously glorified."

CHRISTIANITY IN REACTION AGAINST THIS WORLD OF ACTIVITY. Early Christian Life a Schooling. — In its reaction against this corrupt society of the last pagan centuries, life in the early Christian Church was a schooling of very great importance; to be sure, this was not a schooling of an intellectual character, but we have previously seen how formal and how futile was the intellectual education for some centuries of the new era. Education now for a thousand years is to possess very little of the intellectual element. It was during this period that the character of the education dominant for the thousand years after the Christianization of the Roman Empire was shaped. As a type of education — the religious education that has existed quite as long as any other — and as an element that enters into all education, it is important for the student of educational history to comprehend it.

The early Church was concerned in the moral reformation of the world, in the destruction of the state of society already described; for this reason it turned its attention wholly to the moral education of its own membership and thus to the regeneration of society. The gladiatorial shows, which had extended their demoralizing influence throughout the empire, were put down by the Church, though not without a long struggle; divorce, which had become such an evil that it was said that men changed their wives as easily as their clothes, was forbidden or at least strictly regulated; infanticide, which was universally practiced and had been largely responsible for the great shrinkage of population and had been combated, when at all, by philosophers and by government

only on political grounds and hence ineffectively, was now opposed on moral grounds and rooted out of the Church and finally out of society at large; in a similar manner, the exposure of children was definitely treated as murder, and through the teaching of the early Church and the large sums of money which it spent for the care of such children, the standard of public opinion was raised from the incomprehensibly low one of the entire classical period; the immoral public ceremonials and the lascivious practices of private worship of the pagan religions were of course denied all communicants of the new Church and were in time driven from public tolerance. In these respects, and, above all, through the high standards of personal morality, as expressed in the Mosaic law and in the Sermon on the Mount, standards altogether unknown among the masses of population, the early Church enforced a moral education that was entirely new in the history of the world as well as in the history of education. If one will compare the simplicity and purity of character of early Christian worship with the ceremonials of the pagan religions; the character of the Christian priesthood with that of the pagan cults; the morality inculcated in the one with the habit fostered in the other; the sacrifice entailed in the one with the indulgence granted in the other; the humanitarian sentiments in the one with the cruelty and brutality, however refined, in the other; the charity and generosity of the one with the selfishness of the other; if these comparisons be made, the importance of this education will be readily understood.

It is the unanimous testimony of historians that for the first two centuries, and for a large part of the third, the life upheld by the Christian Church, with its purity yet unsullied and its ambitions yet untainted, furnished one of the most remarkable phenomena in history; and that this purity of life was largely responsible for the rapidity and thoroughness of its conquest of the Roman world. This high ideal of

moral life was exacted from all its membership, and since during this time, the body of church membership was sharply marked off from the rest of society, delinquent members could readily be returned in disgrace into the body of population whence drawn. Since it was neither honorable, popular, nor profitable in the worldly sense to live this Christian life, those adhering to the new ideal were more genuinely devoted to its teachings than was true in a later age when the whole Roman world became Christian. In this sense early Christianity was a schooling.

Catechumenal Schools. — In the early Church there grew up, as a matter of necessity, a process of instruction for those who desired to become members of the Christian community but who lacked the requisite knowledge of doctrine and the requisite moral stability. In general these were divided into two groups, — those who had merely expressed a desire to become members of the Church, and those who were thought by the Church to be worthy of full admission. Only after candidates had undergone some instruction and discipline were they received into full communion through the sacrament of baptism. The tendency in this early period was to postpone this rite of baptism for a longer and longer time until eventually the custom gave origin to great evils. These catechumens included children of believers, Jewish converts, and the adult converts of the heathen population. Though to a certain extent the discipline entailed was intellectual, in that it had to do with doctrines, it was for the most part a moral discipline and a moral oversight. In one other respect, in music, this instruction possessed significance. The psalmody of the early Church, especially in the East, was of conspicuous importance. In regard to moral training, this use of music was probably of an importance comparable with the function of music in Greek education. At stated periods in the week, in some places every day, the catechumens met in the porch or in some other specific

portion of the church for instruction and moral training. This custom of catechumenal instruction was universal and through it, supplemented by the oversight of the home which was far more rigid than that of the contemporary Roman or Grecian home, the children of the Christian population received whatever education they obtained.

Catechetical Schools. — From their method, and from their use of the catechism as the basis of their instruction in subject-matter, the catechumenal schools were also called catechetical schools. But by way of distinction this term is better applied to a development of these schools in a few localities into institutions carrying on a higher grade of work. As the Christian leaders at Alexandria and other Eastern centers came in conflict with the Greek schools of thought, it became more and more necessary to equip the leaders and the ministers of the Church with a training similar to that of the Greeks. For some centuries Alexandria was the center of this intellectual and theological activity. In 179 A.D. Pantænus, a converted Stoic philosopher, became head of the school for catechumens at Alexandria. Bringing to the service of Christian instruction the learning of the Greek philosopher and the eloquence of a rhetorician, through him and his successors both philosophy and rhetoric — in fact all the Grecian learning — was brought to the service of the Church. Pantænus was succeeded in turn by the two most noted of the Greek Church Fathers, Clement and Origen, from whom came the earliest formulation of Christian theology. Such schools, though of less importance, grew from the catechumenal schools elsewhere. In 231 Origen, compelled to leave Alexandria, established a similar school in Asia where he taught philosophy, rhetoric, logic, astronomy, and practically the entire round of Grecian learning. Here literature, history, and science were studied as in Grecian schools, though from a different point of view. Though to this school came scholars of all classes, it became

a school especially for the training of the clergy under the direction of the local bishop.

Episcopal and Cathedral Schools. — Thus there grew from this rather indefinite institution, termed the catechetical school, the very definite type, that developed all over Europe, constituting throughout the Middle Ages a class of schools as important in some respects as those of the monasteries, and persisting until the present time. Other schools, such as that of Origen at Cæsarea, though less thorough, were established throughout the East by other bishops for the training of their clergy and for the general instruction of converts. It was but natural that in a population well educated and much given to philosophical and theological discussion such schools should flourish. Calixtus, Bishop of Rome, during the opening year of the third century established there a similar institution, which developed rapidly into a flourishing school patronized by emperors and possessing a large library under the charge of skilled librarians whose names are preserved to us from the fifth century. Promotion in the ranks of the clergy soon came to depend somewhat upon studies carried on in this or similar institutions. Such schools developed rapidly because, as the identity of the words pagan and countryman indicates, the spread of the gospel occurred through the large cities. As the life of the priests gathered in these central places was brought into subjection to regular rules or canons, as was done first in 354, it became possible to regulate the work of such schools more definitely. During the fifth and sixth centuries the Church councils legislated that children destined for the priesthood should early be placed in these training places under the charge of the bishop. As the result of this and similar legislation, of the growth of powerful episcopal estates, of the need for the erection of appropriate buildings, and of the need for a larger body of clergy under the direction of the bishop, such schools became attached to practically every bishopric

in the West. In the West they were more commonly called cathedral schools from the building where located. With the overthrow of Roman culture by the barbarians, when education fell into the hands of the Church completely, these schools with those of the monasteries remained the only ones of the West. From the eighth to the twelfth centuries it is probable that the monastic schools were of far greater importance than the cathedral schools; but with the expansion of knowledge and the greater tolerance of inquiry, the rigidity and the narrowness of the monastic schools resulted in the renewed growth and revived importance of the schools under the immediate direction of the bishops.

EARLY CHRISTIANITY IN REACTION AGAINST THE WORLD OF THOUGHT. — Opinions concerning the relation between Christianity and pagan learning and culture divided the leaders of the early Church into two quite well-defined groups. One held that this ancient learning contained much that was valuable for Christians and for the Church; that much of it confirmed the teachings of the Bible; that philosophy was a search for truth as Christianity was; that all philosophies contained some valuable truth, though not the highest and not complete; and that Christianity should include all this ancient learning and should build upon it. The other group, recalling the scorn of the Greek philosophers, the insults and the atrocities heaped upon them by the representatives of this heathen culture, and the immoralities contained in their literature and sanctioned by their religions, held that there could be no compromise between the truth and the world; that philosophies when connected with Christianity produced only heresies; that literature and culture in general represented merely the seductions and the pleasures of the world; that those who were instructed in the legends of Homer, in the myths of Zeus and the gods, got from them nothing but lessons of impurity and, hence, that such litera

ture was unworthy of acceptance by the Christian Church; and consequently that the Church should reject all of this ancient learning as hostile to the interests and the purposes of Christianity.

In general the view friendly to this learning prevailed in the earlier history of the Church and especially in the East among the Greeks; the view hostile to this learning became more general in the West and, even before the overthrow of the old social structure by the barbarians, prevailed among the Christians of those parts. And it was but natural that the Christians of the West should identify heathenism with this ancient culture, for the chief hold which the old religion retained upon the people was through this literature; the most forcible opposition to the progress of the Church came from the class most conversant with this literature, and the chief stronghold of the pagan régime was, as we have seen, in the schools. On the grounds that a Christian could not appreciate, certainly could not teach Homer, Virgil and similar works, the apostate emperor, Julian, forbade all Christians teaching in the rhetorical and grammatical schools. While this proscription implies the presence of many Christians in these schools, it is probable that they were merely nominal Christians, as was Augustine in his earlier years. That this attitude was fully reciprocated is indicated by the action of one of the synods of Carthage. In 398, long after the Church was completely triumphant in the empire, even long after there was any specific danger to be apprehended from this pagan influence hiding in the old learning, this synod forbade all bishops to read any of the pagan literature. This had come to be the attitude typical of the Church. With such a hostility it is not to be wondered that learning almost ceased to exist, and that there followed for some centuries the period commonly termed "the dark ages."

Since this attitude of the Church explains to a large extent the condition of education for a thousand years, some further

reasons in extenuation or explanation of it should be given. One of the most important of these has been mentioned: it is the fact that the great mission of the Church as well as the great need of the times was a moral one. Added to this was the belief prevalent throughout the early Church that the second advent of Christ was near, and that consequently, learning, culture, and in fact all mundane affairs were of trivial importance. The persecution and the exile which many Christians in the first three centuries were compelled to undergo deprived them of all opportunity for the acquisition of pagan learning had they desired it, and destroyed all inclination to attain to the most distinctive possession of their persecutors. In the section following, that on monasticism, is discussed more fully one other great reason for this indifference. This is asceticism or the opposition to all worldly interests and to all that gives satisfaction or pleasure of a human or natural character. Two other reasons, one operative in the earlier centuries, the other in later times, explain in part this indifference of the Church to learning. In the early period its success was largest with the lower class of people to whom its message brought a wonderful deliverance. They were disinclined, through nature, through sympathy, and through tradition, to take any great interest in the culture that had been made possible only by their debasement. In the later period, the strength of the Church was found in the new Teutonic peoples, whom, it is true, the Church raised out of barbarism, but to whom at the same time it was impossible for many generations to impart the graces of culture. Again the unification of the Church in the West and its reputation and desire for orthodoxy acted as a check upon learning and upon the spirit of inquiry, that, after a manner, was fostered or permitted in the East long after it had disappeared in the West.

As a foundation for the study of the subsequent ages a more concrete view of this difference in the attitude between

the early and the later, the eastern and the western Church, is desirable.

Attitude of the Greek Christian Fathers toward Learning. — Though the Apostle Paul remarked that "not many wise are called," by the second and third centuries many trained in all the learning of the Greeks had accepted Christianity. Among these Justin Martyr, Clement of Alexandria, Origen and Basil, and others of the Greek Fathers were the most prominent. It is but natural that these men, who were primarily Greek philosophers and most of them teachers as well, should aim to bring all of this learning to the service of the Church.

The earliest of importance was Justin Martyr, whose life covers approximately the first three quarters of the second century. A converted teacher of philosophy, he continued throughout his life, to follow his profession, to wear his philosopher's garb, and to retain his belief in Platonism. He claimed that Plato, Socrates, and Heracleitus were Christians before the time of Christ, and that philosophy was an attempt, though falling short, after the same end as Christianity. Consequently, he held, the teachings of philosophy were included in those of Christianity, and so far as they were correct, harmonized with it.

Clement (c. 160–c. 215) was the successor of Pantænus as head of the catechetical school at Alexandria. Holding that the Gospels were perfected Platonism and, with early Christian philosophers in general, that "Plato was Moses Atticized," Clement taught that pagan philosophy was "a pedagogue to bring the world to Christ." Another one of his doctrines was that God had made three covenants with man, — the law, the Gospel, and philosophy. Most of his teachings and writings were directed toward the reconciliation of faith and reason, of Christian revelation and pagan philosophy. To such a degree did he find this true that to him Christianity became, for the most part, a philosophy. His citations from writings

of the Greeks show a familiarity with many hundred different works in every field of literature.

His pupil and successor, Origen, the most learned of the Christian Fathers (c. 185–c. 254), when speaking of the sciences of the Greeks, wrote: "They are to be used so that they may contribute to the understanding of the Scriptures; for just as philosophers are accustomed to say that geometry, music, grammar, rhetoric, and astronomy all dispose us to the study of philosophy, so we may say that philosophy, rightly studied, disposes us to the study of Christianity. We are permitted when we go out of Egypt to carry with us the riches of the Egyptians wherewith to adorn the tabernacle; only let us beware how we reverse the process, and have Israel to go down into Egypt and seek for treasure; that is what Jereboam did in old time, and what heretics do in our own." This allegorical use of the despoiling of the Egyptians occurs over and over again in later times, as by St. Augustine himself. As the founder of systematic theology, the formulator of most of the dogmas of the Church, the earliest scientific critic of the Scriptures, Origen exerted the most extended influence of any of the Fathers except possibly St. Augustine. Especially through his teachings concerning the harmony of the pagan sciences with the doctrines of religion, of Greek culture with Christian faith, he reconciled the Greek world to the new religion and aided in its dissemination.

By the time of St. Basil (331–379) and Gregory of Nazianzus (c.325–c.390), the opposition of the Christians to pagan learning and especially to Greek philosophy had become more pronounced; but both these Fathers unite in the protest of the earlier ones against this prejudice and in the effort to show that Greek literature is full of both principle and event, of both precept and example, helpful in instruction and leading to the higher life. Speaking of the closing of the pagan schools to Christians by Julian (p. 236), Gregory wrote: "For my part I trust that every one who cares for learning will

take part in my indignation. I leave to others fortune, birth, and every fancied good which can flatter the imagination of man. I value only science and letters, and regret no labors that I have spent in their acquisition. I have preferred and shall ever prefer learning to all earthly riches, and hold nothing dearer on earth, next to the joys of heaven and the hopes of eternity." However, the opinions of these later Fathers is not so unqualified as that of the earlier. It is only within limits that learning is recommended. Later Chrysostom (c.347–411), though not in condemnation, it is true, yet with greater disparagement, writes, "I have long ago laid aside such follies, for one cannot spend all one's life in child's play." And Basil, writing on the education of children, thus sums up his judgment, expressed fully in a much longer discussion: "Are we then to give up literature? you will exclaim. I do not say that; but I do say that we must not kill souls. . . . In fact, the choice lies between two alternatives: a liberal education which you may get by sending your children to the public schools, or the salvation of their souls which you secure by sending them to the monks. Which is to gain the day, science or the soul? If you can unite both advantages, do so by all means; but if not, choose the most precious."

Attitude of the Latin Church Fathers. — By the fourth century, especially among the Roman Christians, Hellenism had become almost synonymous with hostility to the Church. Most of the Latin Fathers — Tertullian, Arnobius, Lactantius, Gregory, Augustine — had been teachers of oratory or of rhetoric. Tertullian was primarily a lawyer; Jerome and Augustine were saturated with the pagan learning. All were skilled in the science, if not the practice, of Roman learning and education, and some had written treatises upon these subjects.

Tertullian (c.150–c.230), the earliest of the Latin Fathers, reveals the attitude of the West in a most characteristic manner. To him all Grecian learning was bound up with heresies

and, as he was especially engaged in the conflict against Gnosticism, he sought to widen the breach between philosophy and the Church. In his *Prescription against Heresies*, he writes: —

"These are 'the doctrines' of man and 'of demons' produced for the itching ears of the spirit of this world's wisdom; this the Lord called 'foolishness,' and chose even the foolish things of this world to confound even philosophy itself. For philosophy is the material of the world's wisdom and rash interpreter of the nature and dispensation of God. Indeed, heresies themselves are instigated by philosophy. From this source came the æons and I know not what infinite forms, and the trinity of man in the system of Valentinus, who was of Plato's school, (etc.). . . . The same subject-matter is discussed over and over again by the heretics and the philosophers; the same arguments are involved. Whence comes evil? Why is it permitted? What is the origin of man? and in what way does he come? . . . Unhappy Aristotle! who invented for these men dialectic, the art of building up and pulling down; an art so evasive in its propositions, so far fetched in its conjectures, so harsh in its arguments, so productive of contentions — embarrassing even to itself — retracting everything, and really treating of nothing! Whence spring those 'fables and endless genealogies' and 'unprofitable questions' and 'words which spread like a cancer'? From all these, when the apostle would restrain us, he expressly names *philosophy* as that which he would have us be on our guard against. . . . What indeed has Athens to do with Jerusalem? What concord is there between the Academy and the Church? What between heretics and Christians? . . . Away with all attempts to produce a mottled Christianity of Stoic, Platonic, and dialectic composition!"

In his work *On Idolatry* in the chapter *On Schoolmasters and their Difficulties*, while he absolutely denies that a Christian can be a teacher of this ancient learning, he is somewhat more tolerant toward the study of it since thus one might be able to refute its errors.

To St. Jerome (331–423), the translator of the version of

the Bible for centuries accepted by the Church, this conflict between the classical learning and the Christian faith became most clearly defined. Perhaps no single event of this general conflict had so great an influence upon succeeding generations, by which it was repeated over and over, as that of his famous vision (374). Dreaming that he was dead and dragged before the judgment seat, he was asked the question, "Who art thou?" Upon answering, "A Christian," he heard with the stricken conscience that repeated its awful warning to many successive generations, the terrible judgment, "It is false: thou art no Christian; thou art a Ciceronian; where the treasure is, there the heart is also." Jerome was also chiefly responsible for the introduction of monasticism into the West. The love of learning and the ascetic idea were the two conflicting motives appealing to him throughout his life. As is shown by his constant quotation from classical authors, he could not entirely give up his love for pagan learning, though after this vision he turned his scholarship entirely to scriptural study and religious writings. While he could no longer favor an education in the old literature, he could not bring himself absolutely to condemn it. As he shows in his Letter to Læta (CVII) he believed that if such studies were to be permitted at all, it should be "rather to judge them than to follow them."

In the case of St. Augustine the same retrograde movement in respect to appreciation for the old learning is to be found as in the case of Jerome. Augustine (354–430), until middle life a teacher of rhetoric and oratory, had begun a cyclopedia on the liberal arts, of which he completed the portion on grammar, a part of that on music, and the introductions to the other parts. His treatise on dialectic, either original or epitomes from Aristotle, had considerable influence in the later Middle Ages. Not so thorough a scholar as Jerome, he yet was a man of broad interests and sympathies, and one passionately fond of Latin literature. Being intel-

lectually the most active and the most brilliant of the Fathers of the western Church, and exerting the widest, the deepest, and the most far-reaching influence of them all, he called into service his extended learning in combating the many heresies in the Church through polemic and expository writings. Thus, while in his earlier years he sanctioned "the spoiling of the Egyptians," at a later period of his life his sympathy for classical learning was much restricted. He discountenanced its use and is supposed to have been personally responsible for the prohibition of philosophical and literary study made by the Council of Carthage (p. 236).

§ 2. MONASTICISM. EDUCATION AS A MORAL DISCIPLINE

SCOPE OF MONASTICISM AND IMPORTANCE OF MONASTIC EDUCATION. — Monasticism and monastic education are topics so large that even were it necessary it would be impossible to give a complete view of the educational importance of monasticism within the limits of a few pages.[1] In the period of time covered, it reaches from the fourth to the sixteenth, even to the eighteenth, century; in the types of life represented it includes the anchorite in the desert, the cenobite in his cell, the friar in his wanderings, and the Jesuit in his schoolroom or on his political or ecclesiastical mission; in the territory influenced it extends from the valley of the Nile to

[1] What Professor McGiffert says of the institution as a whole, may quite as truthfully be applied to its educational importance: "Within monasticism's mighty bosom have surged the passions and the longings of multitudes of the noblest and of the meanest of the sons of earth. Hope, fear, love, hate, humility, pride, self-effacing devotion, self-asserting ambition, world-renunciation, and world-conquest — all the impulses of which the human heart is capable have flourished in monasticism's fruitful soil. The study of monasticism is the study not of a minor government or of a side eddy within the Christian Church, but of Christianity itself, for Christianity was for centuries monasticism. But the study of monasticism is a study not of Christianity alone, but of life — for monasticism was for centuries life at its noblest and its basest." (Harnack, *Monasticism*, Introduction.) In its educational relationship monasticism presents a similar diversity of types.

the highlands of Scotland; in the diversity of types of intellectual life represented, it includes the fearfulness of the hermit, the indifference of many a cenobite, the enthusiasm of the friar, and the brilliancy of the followers of Loyola. Without pretense of giving any adequate account of the history or of the educational activity of monasticism, it needs to be here presented only as a type. Yet as a type it is of great importance, historically, if not in the present. In monasticism the education of the early Church finds its culmination and perpetuation. From the sixth century to the thirteenth, save for the cathedral schools, — which during the greater part of this period were in a state of but minor activity and even then taught for the most part by monks, — there was in Western Europe no other education containing any intellectual element. Again, since in the activities of the friars the work of the early universities is largely included, for three additional centuries this type of monasticism continued to be the most important single educational institution. It is an educational topic of such wide significance that must be presented in the few pages that follow.

In this discussion little or no attention is given to the constant tendency to decline in the character of the monastic life, and to the general decay that occurred throughout the monastic organizations after the fervor of the friar movement had expended itself, and that had much to do with the origin and violent character of the Reformation movement. Such topics are aside from educational interests of a narrower character, and discussions of them are rendered impossible by the scope of the work.

The term "monasticism," in its original significance, could be applied to the hermit alone. It is frequently used in a sense that would exclude the mendicant orders (see p. 330) of the thirteenth century, the canonical clergy that live, as do also the Dominicans, under the rule formulated by St. Augustine, and the teaching congregations of the post-Reformation period

(see p. 420). Yet the term is here used, as it is commonly, in its most general significance, to include all these forms. Through these various stages and changes, of working conception as well as of rules, we cannot for lack of space trace the monastic development. As our interest is primarily in monastic education as a type, and especially in its ideal of education as a moral discipline, our interest in its schools is confined for the most part to that period preceding the thirteenth century. Then other types of schools and other conceptions of education arose. But from the sixth to the sixteenth century the history of monasticism is the history of education.

ORIGIN OF MONASTICISM. — The primary idea of monasticism is asceticism. In its original significance, the word asceticism indicates the training or discipline of the athlete in preparation for the physical contests; in its figurative use it connotes the subjection or the disciplining of all bodily desires and human affections that the mind and soul may be devoted to the interests of the higher life. Found in some degree in all types of religious beliefs, it was given a special prominence in many of the types of beliefs — the Jewish, Persian, the Egyptian, and several of the Grecian philosophical sects — with which Christianity early came in conflict. In all of these the highest ethical thought was that of rising to spiritual excellence and insight through the mortification of all natural and material wants; through fasting, through penance, through flagellation, through prolonged and enervating physical exercise or, better still, through inducing a quiescence of the physical nature and the complete eradication of natural desires and temporal interests. Thus the Christian ascetics united in themselves the Stoic virtues of contempt of pain and of death and the indifference to the vicissitudes of fortune, the Pythagorean customs of silence and of submission of the physical nature, and the Cynic neglect of

the obligations and the forms of society. In the teachings of Christ also, in his command to take no thought for the morrow, to sell all one's goods and give to the poor, to forsake father and mother, wife and children, and, above all, in the frequent exhortations to world-renunciation and to the devotion of one's self to the service of spreading the Gospel, the ascetic idea found support.

Similar to the idea of asceticism, though not quite identical with it, — for it formed but a part of the larger thought, — was the more prevalent motive of world-renunciation. A part of the root idea of asceticism was the belief — held also by Gnosticism — that God no longer ruled in the world of matter, or more especially, in the corrupt social life around the early Christians, and that consequently the true Christian life was to be obtained by a renunciation of this world — an isolation from the affairs of everyday life. To this extent monasticism was merely an expression of the desire to save one's self by leaving one's fellows to their sins and their just punishment. This motive prevailed to the greatest extent in the old classical society; for when the new Teutonic peoples came into control, world-renunciation was replaced by the motive of world-conquest.

One other important condition, which, if not a cause of the origin, was at least the great cause of the development of monasticism, was the changed character of the Christian Church from the third century on. By the middle of the third century the Church had become largely secularized; by the opening of the fourth, with the conversion of the empire (312, 322, etc.), Christianity was identified with society; the customs and manners of the world were the customs and manners of Christendom; the Christians were no longer a marked-off or distinctive people. It happened then that the clergy, or more especially the monks, became a body of separated people, as before the entire Church had been, living according to a higher code of morality, possessing distinctive

marks of their profession, and abstaining from the common interests and activities of society.

Two other causes of the development of monasticism need but to be mentioned. One was the persecutions that drove many Christians to the wilds of the deserts and the mountains; and the other was the belief — almost universal in the early Church — that the second advent of Christ was at hand, and that consequently no interest in the affairs of everyday life were to be considered in comparison with the spiritual preparation for the new life near at hand.

Out of these ideas and practices of the religious sects of the East and the philosophical schools of the Greeks, Christian monasticism developed naturally upon the soil where at this time both religions and philosophies found their most ardent devotees, — that is, in Egypt. However early this movement may have begun, its coming into prominence was first due to Anthony, who in 305 fled to the desert, and there near the shores of the Red Sea subjected himself to a series of physical penances — tortures one might almost say — that were the first of a long line of exacting, ingeniously devised, and heroically endured practices for the mortification of the flesh. His example begot many imitations, and soon one of his followers, Pachomius, had collected fourteen hundred followers who desired to imitate this life of effacement for the sake of spiritual benefit. The ideal in the East ever continued to be that of isolated life as a hermit or anchorite. Monasticism was transferred to Greece by Basil and to Rome by Athanasius (341) and Jerome. But throughout the West neither nature nor the human mind was favorable to this life of isolation and quiesence, so life in communities — the cenobitic life — was preferred to that of the anchorite. Such communities during the fourth and the fifth centuries became very numerous. Each was controlled in its independent existence by its own rules. Some of them, it is true, adopted the rules of St. Basil, the only ones ever introduced at all

generally in the East; but in 529 Benedict, a Roman patrician who had fled from the scandals and corruption at Rome to find in the solitary life relief from such wickedness and such temptation, and who had drawn around him many attracted by his own life of spiritual devotion, organized a community under a set of rules. While these were designed only for his own group, they soon became of universal influence throughout the West.

IDEALS OF MONASTIC LIFE AND EDUCATION. Asceticism an Ideal of Discipline. — The rules of monastic life might present the greatest variation; its ideals were everywhere the same. In all places and in all ages its dominant ideal was that of asceticism. The virtue of the monk was often measured by his ingenuity in devising new and fantastic methods of mortifying the flesh through fasting, through eating insufficient and inappropriate foods, through taking insufficient sleep, through wearing insufficient clothing, through assuming unnatural postures of extreme discomfort and maintaining them sometimes for months, through uncleanliness of body, through binding the limbs with ligatures, through loading the body with chains and weights, through every means which would reduce or even destroy the natural wants or would produce suffering from insufficient care for them. That at the same time this régime might also destroy or weaken the mind, and in any case make it subject to abnormal visions, which but increased through the terror of such temptations, the irrational régime that produced them seems seldom to have been noticed. All these forms of discipline were for the sake of the spiritual growth, the moral betterment of the penitent: all these, as the very significance of the word "asceticism" indicates, reveal the dominant conception of education which prevailed throughout this long period, — the idea of discipline of the physical nature for the sake of growth in moral and spiritual power. The ideals of monasticism were usually summed up in the three

ideas of chastity, poverty, and obedience, or more technically, conversion, stability, and obedience.

Chastity. — The idea of celibacy went far beyond the rigid restrictions of the early Church; far beyond the provision of celibacy for the clergy. The ideal was the condemnation of the family and of all human relationship and affection. These were now to be completely effaced and their places taken by religious relationship, established through the monastic rule and life, and by spiritual interests, realized through a life of silent isolation and of continuous devotion and worship. It was because the ties of relationship — the love of father, or mother, or child, or sister — represented the most powerful and least readily severed influence of "the world" that monasticism exerted its greatest strength to destroy them. Not only the lives of the saints, but also the writings of such a great and noble churchman as Jerome, are filled with incidents or counsels that appear to us now almost inhuman, holding, as they did, that "in this matter cruelty is only piety."

Poverty meant the rejection of all the material interests of the world; for after Christianity became the state religion, the ordinary Christian could continue to be a merchant, a civil or military officer, or have part in any vocation devoted to the pursuits of earthly interests. Upon entering the monastic life one must give up all his property and all claims upon the rights of inheritance. Except on consent of his superior he could never receive anything as his own — not even a letter. Within the monastery all things were held in common, and this life was held to be the nearest approach possible to the commands of the Savior and to the life of the early Christian Church. It was through the influence of this monastic ideal of poverty that during so many medieval centuries the virtue of charity, or rather of mere giving, was exalted to the position of the highest Christian virtue, one that would cover the absence of almost all others.

The Ideal of Obedience was the distinctive characteristic of the cenobitic life as opposed to the hermit life. In the West, with few exceptions, the community monastic life prevailed. In entering this community one gave up all right of personal choice, of disposal of his own time, of determination of his own interests. His will was completely subjected to the will of his superior, and in this last surrender and effacement was found the perfection of moral and spiritual growth. The entire routine of life and of its activities and interests was determined by minute precepts formulated in the rule of the house. Since one gave up all allegiance to other institutions, such an ideal was the surrender of the last evidence of personality and the negation of all political organization of society. This self-effacement was to be complete, and in the rules most generally adopted, minute regulations pursued him in his most secret moment. "Submission had to be prompt, perfect, and absolute. The monk must obey always, without reserve, and without murmur, even in those things which seemed impossible and above his strength, trusting in the succor of God, if a humble and seasonable remonstrance, the only thing permitted to him, was not accepted by his superiors; must obey not only his superiors, but also the wishes and requests of his brethren." [1]

Social Significance of these Ideals. — Thus, in a manner, the monastic ideal had its negative as well as its positive significance. In its three great ideals it negated the three great aspects of social life, — the family, industrial society, and the state; among the anchorites and in many cases in the western monasteries which rejected the oversight of the bishop, it tended to negate even the Church. Certainly it represented a type of disciplinary education which left out of account these three great classes of needs of society and emphasized and developed those moral virtues that, in a restricted sense, find expression largely through the Church and religion.

[1] Montalembert, *Monks of the West*, Vol. II, p. 423.

On the other hand, monasticism became in the larger sense an educational force of very great importance to society as a whole. Each one of these monastic ideals introduced new factors into social development. For example, the habit of obedience, with its accompanying virtue of humility, presented as great a contrast as can be imagined to the strong individualism of the barbarian and the arrogance of the Roman. The ideals and habits of the monks entered into the reorganization of society in the institution of feudalism, revealed themselves in the crusade movement, and probably did more than any other single factor in the subjection of the rude Teuton to the restrictions of civilization and culture.

THE MONASTIC RULES. — The details of these three great ideals are expressed in a code of rules, in the earlier days formulated and adopted by each individual monastery, but after the sixth century almost universally patterned in the West after the rules of St. Benedict (p. 248).

It is proper to speak of the spread of these rules as being by adoption, for there was no general organization of monasteries under Benedict's rules, but each remained independent as before. Nor were these rules exclusive: they were to be supplemental to rules already adopted, and individual monasteries might add to them, as they did very generally after the eleventh century. These rules were seventy-three in number: nine relating to the general duties of abbots and monks; thirteen to worship; twenty-nine to discipline, errors, penalties; ten to the administration of the monastery, and twelve to various topics, such as reception of guests, conduct of monks while traveling, etc. The distinctive feature of the Benedictine Rule was the insistence upon manual labor of some kind added to the implicit obedience which the monk must render the abbot in the performance of this work. In very great divergence from the ideas and habits of the monk

of the East, indolence was termed the enemy of the soul To provide against this, at least seven hours a day must be given to some kind of toil. Thus at one stroke were eradicated from the monasteries of the West many of the evils that had come into monastic life, both through the surrender to temptation coming as a result of idleness and to the more subtle evils of a subjective kind arising from enforced solitary confinement and a brooding over imaginary evils by minds little adapted to profit from such a course. The Benedictine Rule is the first recognition of the value of manual labor in education; and though the conception of education and the value placed upon the manual activities in this moral training were both very different from those in our own time, they were a great step beyond the position of the Greeks and Romans. From this provision came most of the social benefits of monasticism in the West, — for in the broadest sense of the term monasticism was an education. In the cultivation of the soil the monks furnished models for the peasantry; they introduced new processes for the craftsmen in wood, metal, leather, and cloth; they gave new ideas to the architect; in a way they stimulated and fostered trade among the mercantile class; they drained swamps and improved public health and public life in almost every way; and besides offered asylums to the poor, the sick, the injured, and the distressed.

The rules also provided that two hours of each day should be devoted to reading; indicated the portions of the Bible and of the Fathers to be read; provided for the reading of the Bible during the meal hours; and through minute rules saw to it that these times for reading were not to be wasted in idleness, in sleep, or in talking. Naturally the greatest care was given to minute specifications concerning worship; the occasion, duration, and number of prayers throughout the day and night; the song services, etc.

To the rules of Benedict, there were very generally

added during the eleventh and twelfth centuries more rigid rules by a variety of new monastic orders. The most notable of all was the Cistercian Order (founded 1098), which carried asceticism to a greater extreme than any other body. It enjoined absolute silence, provided for the solitary life so far as possible, simplified worship, and in their churches and ceremonials applied the most rigid ascetic rules as no other order ever had done. Common among these provisions of the eleventh-century reforms was that permitting the admission to monastic orders of lay brothers exempt from the duties of religious service but devoted to the rough work of the monasteries. Though these formed a distinctly uneducated class, their presence permitted a greater devotion to study and to literature upon the part of the more educated. The general effect of this provision was to improve the literary character and the educational work of the monasteries.

MONASTICISM AND LITERARY EDUCATION. — As we have seen, monasticism was not primarily a scheme of education in the literary or school sense; its conception of education was of a wholly different type, — one relating to the formation of moral and religious character alone. Many, consequently, have resented any criticism of the learning or the educational efforts of the monks as altogether invalid, on the grounds that an institution or a class of people is not to be held responsible for that which it does not explicitly undertake. It is true that until the organization of the teaching orders in the sixteenth and seventeenth centuries, the monastic orders did not make education a controlling aim. On the other hand, it is also true that from the seventh to the opening of the thirteenth centuries, there was practically no other education but that offered by the monks, and that the Church and the monastic institutions were responsible for the fact that no other conception of education existed and that no other educational institutions were tolerated. As we have seen, the Church through its

hostile attitude and monasticism through its new and revolutionary ideals were largely responsible for the complete disappearance of the old cultural ideals, for the neglect of the study of the old literature, and for the substitution of a radically different type of educational institutions in place of a rejuvenation of the old. Our need, however, is to appreciate exactly the character of the education that monasticism offered to the world for some six centuries in lieu of all others.

The historical evidence concerning life during the Middle Ages is such that, together with our diverse emotional natures and conflicting religious bias, it permits two interpretations of most points connected with medieval education and thought life. Adhering as closely as possible to the facts, and omitting partisan bias, let us look at both sides of the question under the topic of

Study in the Monasteries. — One must ever hold in mind the fundamental idea of asceticism, previously referred to as given in the literal meaning of the word, — that of discipline or training. St. Benedict, whose ideas were adopted throughout Western Europe by all of monasticism that comes within our view, did not believe that the mind or soul should be allowed to work simply upon itself to produce evils quite as great as those fled from, but that it should ever be kept busy. Hence he provided for seven hours of labor, chiefly manual, though it might be literary, and for from two to five hours of reading each day. Some similar provisions had been made before by St. Basil in the East. It was in all probability Cassiodorus, the great statesman, — who, as prime minister to several successive barbarian rulers of Italy, preserved so much of the ancient customs and who, in his old age, turned monk, — that formulated this idea and gave it to the Benedictines. From these provisions, imposed as matters of discipline for the monks, not for any external results, came most of the indirect social benefits of monasticism. If the monks must read, they must be taught to read, they must have

books, and they must in turn teach the novices to read and copy manuscripts. Hence, without any word in the rules concerning schools and with but the briefest reference to the training of the youth accepted for the monastic life, without any direct reference to the copying of manuscripts or to the study of literature or to the preservation of books, all of these things followed.

But there were other causes contributing to make the results of this one provision so great and so far-reaching. In those restless ages of rude culture, of constant warfare, of perpetual lawlessness and the rule of might, monasticism offered the one opportunity for a life of repose, of contemplation, and of that leisure and relief from the ordinary vulgar but necessary duties of life essential to the student. Hence the youth who came at the age most impressionable, and most given to the pursuit of ideals, was influenced toward the life of reflection and of study; those bereft of family and of protection found in the monastic cell a retreat and in study a consolation; while those worn out with a life of toil, or shocked by the brutality and callous indifference about them, found here a natural resting place and in the pleasures of a life of reflection and study a legitimate reward for the burdens they had borne.

Thus it happened that the monasteries were the sole schools for teaching; they offered the only professional training; they were the only universities of research; they alone served as publishing houses for the multiplication of books; they were the only libraries for the preservation of learning; they produced the only scholars; they were the sole educational institutions of this period. In each of these lines their activities were, to be sure, meager; but the opportunities were meager, and however great the needs, the conscious social demands of the times were more meager still.

Every monastic rule — and they were much more numerous than this brief account would seem to indicate — either

authorized indirectly or commanded directly the study of literature. The earliest of all rules, those of Pachomius, required specifically that every monk should read and write, and provided for the instruction of those admitted who could not. In the East this intellectual requirement was, of course, under the dominance of Greek ideas. The latest great monastic movement, of the post-Reformation period, was specifically an educational one. The supplementary rules added from time to time by the Benedictine institutions laid more and more stress upon this literary aspect of their life. The most famous monasteries in every country were those noted for their learning and for the training they afforded. Typical of these were those of Fulda and Hirschau in Germany, at Tours, Corbie, Bec, and Clugny in France; at St. Gall in Switzerland; at Glastonbury, Malmesbury, and Canterbury in England; at Monte Cassino in Italy. While these were exceptional institutions, there were many that adopted as their motto, "Love the study of Scriptures and you will not love vice." Some of the monasteries, especially those of the type mentioned above, carried their study much further and included the study of the Greek classics. At St. Gall, in the latter part of the tenth century, lectures were given on Cicero, Quintilian, Horace, Terence, Juvenal, Persius, Ovid, and Sophocles. To this subject we will return later.

Let us now turn to the other side of the question and consider the meagerness of the learning of the monks. We may disregard such careless judgments as are founded presumably upon isolated cases. Such is the argument respecting the probable rarity of books as evidenced by the extravagant prices paid for occasional ones; the argument that many monasteries were without books, because mention is made of an occasional monastery in a dilapidated condition possessed of only one missal (meaning probably several copies of the same work); that all monks were densely ignorant, or vicious, because occasional ones might be. There are, never-

theless, certain general conditions that must be borne in mind. In the first place, it was the study of the Scriptures only that was commended, and though the term *Scripturæ Sacræ* indicated more than we understand by the term *Holy Scriptures*, including as it did all religious writings, it did not go beyond this. Then, again, study was never an end in itself, but simply a disciplinary means or an occupation for otherwise idle moments; the instant study became an end or a pleasure in itself, the very purpose of its introduction into the monasteries was negated. Further, it is just as erroneous to argue from a few exceptional cases, such as St. Gall, or Monte Cassino, that "to the monk of the tenth century no knowledge was unfamiliar," as to argue from other occasional instances that they knew nothing. It is quite evident that many monks were entirely ignorant; that many monasteries gave practically no attention to learning; and that those which gave attention to secular literature were comparatively few. Considering the opportunity for study afforded by their leisure time, their freedom from interruption, their knowledge of the language, their possession of the few books existing, it is surprising that the monks made so little advance in the knowledge of the ancients and created so little literary material.

In explanation of this situation two further considerations are to be borne in mind. To most of these monks, save those in the intellectual centers, the study of ancient literature, disapproved as it had been by the Church for several centuries, represented distinctly the interests and the temptations of the world, and a desire for such study was indulged in only at a distinct risk or as a positive sin. Such study was a gratification of human desires, a satisfaction of the tastes that was distinctly hostile to the idea of asceticism. The uncertain or changing attitude toward the ancient classics of such leaders as Jerome and Augustine would lend emphasis to the idea that all such learning was a temptation.

The other consideration is most fundamental of all, and applies to the intellectual life of the entire Middle Ages. Quite as prominent in its early history as now were the many divisions within the Christian Church. Even as late as the period of St. Augustine, these numbered eighty-five according to his own enumeration. As a result of this, both error of judgment and the state of intellectual doubt came to be looked upon as sinful. One of the most commendable traits of ancient society within the polytheistic period of Greece or Rome or in the later skeptical cosmopolitan periods, was toleration of beliefs. To this fact Christianity itself in its early days owed very much. But to the Christian, tolerance of a belief that might mean eternal damnation to those enslaved by it was no virtue but a distinct evil. Hence the very basis of all intellectual progress, the spirit of inquiry and the desire for truth or reality, irrespective of its effect upon emotional states or religious beliefs held as a matter of faith, was wanting to these ages. Doubt concerning any belief or an interpretation of a fact or incident established by the Church, or suggested by its relation to the welfare of the Church and the further development of this age of faith, came to be considered of as great demerit and evil as error itself. The validity of any statement, the actuality of any alleged instance, came to be determined, not by any application of rationalistic principle, not by inherent plausibility, not by actual inquiry into the facts of the case, but by its agreement with religious feelings or beliefs, its effect in furthering the influence of the Church or the reputation of a saint — in general, by its relationship to matters of faith. Thus it happens that the chronicles of the monks and the lives of the saints, charming and interesting as they are in their naïveté, their simplicity, their trustful credulity, and their pictures of a life and an attitude of mind so remote from ours, are filled with incidents given as facts that test the greatest faith, strain the most vivid imagination, and shock that innate

respect for reality that it is the purpose of modern education to inculcate.

Schools in the Monasteries. — Aside from the training of novices, wholly religious, and this provision for reading, there is no mention direct or indirect of schools or of instruction in the rules of St. Benedict. However, Benedict himself had accepted youth to train, and the monastery of Cassiodorus, which had great influence over the Benedictines, laid much greater stress upon intellectual training. Except for the training of the monks themselves or of the youth offered for monastic life, the monasteries made little provision during several centuries for schooling of any kind, and that given was chiefly of a religious character. The arts of reading and of writing, of singing and of calculating the Church calendar were, of necessity, given, though probably this latter was reserved for but a few. Rules supplementary to the original ones of St. Benedict were later adopted by the monasteries of the order. Those affecting the school required a novitiate of two years, and stipulated that no member should be received into the order under eighteen years of age. As boys not yet in their teens were often accepted, a prolonged schooling and discipline were provided.

Previous to the later portion of the eighth century such schools throughout Western Europe, save in the British Isles, were very rudimentary, and the character of learning in all the monasteries was very meager, with no opportunity for education of boys not destined for monastic life. Especially in Ireland, and thence transported to the monasteries and cathedral foundations of England and Scotland, a knowledge of classical literature, even of the Greek tongue, was kept alive. This learning and interest in intellectual activity, and a breadth of view that was wanting during this time to the Continent as a whole, had been inherited by the Irish monks from the monasteries of the Romanized Celts of the Continent and of Britain, whence St. Patrick came.

During the latter part of the eighth century, through a movement headed by the Emperor Charles the Great and his minister Alcuin, — a movement to be discussed later (pp. 274–8), — monastic schools became much more numerous and of



A Monastic School for Interns and Externs.

better grade, and very generally provided an education for youth not intended for monastic life. Though there was a decline during the ninth and the greater part of the tenth centuries, nevertheless, the monastic schools so dominated the realm of education that the eleventh century is known as the Benedictine Age. This term is also fre-

quently applied to the entire period from the seventh to the eleventh centuries. It was not until the eleventh century that there was any education to speak of outside of monastic schools, and not until the thirteenth century that there occurred marked changes in the character of education given in any institutions, for until then practically all of these schools were taught by monks. During all of this period it might be said that every monastery was a school, and that all education was either in the monasteries or under the direction of monks.

We have spoken of the meagerness of this learning; it may be well to notice it at its broadest. Alcuin tells of the work in the school of his master Albert, as follows:—

"The learned Albert gave drink to thirsty minds at the fountain of the sciences. To some he communicated the art and the rules of grammar; for others he caused floods of rhetoric to flow; he knew how to exercise these in the battles of jurisprudence, and those in the songs of Adonia; some learned from him to pipe Castalian airs and with lyric foot to strike the summit of Parnassus; to others he made known the harmony of the heavens, the courses of the sun and the moon, the five zones of the pole, the seven planets, the laws of the course of the stars, the motions of the sea, earthquakes, the nature of men, and of beasts, and of birds, and of all that inhabit the forest. He unfolded the different qualities and combinations of numbers; he taught how to calculate with certainty the solemn return of Eastertide, and, above all, he explained the mysteries of the Holy Scriptures."

For the fact that schools were not more numerous, and that the character of their work was not of a higher grade, the Church and the monastery must not be held altogether responsible. It must be remembered that the masses of the people of these centuries were little more than barbarians, and that they certainly took much more naturally to warfare and destruction than they did to schooling. That learning

and the scholastic traditions should be preserved at all in the midst of a society not settled and of a people devoted largely to repelling invasions or engaging in similar excursions for depredation, was no inconsiderable service.

The Copying of Manuscripts and the Preservation of Learning. — Through the provision requiring a certain amount of reading each day, and the inclusion under the head of manual labor of the copying of manuscripts for those who were physically unable to perform heavier tasks, or because of inclement weather, the monasteries came to perform quite as great a service to learning as that involved in the establishment of schools. This activity of the monks continued from the earliest formulation of the Benedictine rules, for the conduct of religious services depended upon a supply of the missals, of the Scriptures, and of the writings of the Fathers for daily reading. An architectural feature of every monastery was the *scriptorium*, or general writing room. In many monasteries special cells for copyists were later added and also, in many instances, a library and a schoolroom. That this work of the copyist was not merely mechanical, but was designed to have an intellectual and a moral effect as well, is indicated by the words used later at the consecration of the scriptorium: "Vouchsafe, O Lord, to bless this room of thy servants, that all which they write therein may be



A Carmelite Monk in the Scriptorium.

comprehended by their intelligence and realized in their works." As we have hitherto seen, this dedication would indicate that the monks were expected to deal with religious writings, but it was true also that the classics of Rome and a few of those of Greece, chiefly in Latin form, were also copied. If this had not been true, we should not have many of the classics that remain to us to-day.

Montalembert goes so far as to claim that the knowledge of the classics was more general in France in the thirteenth century than it is at the present time, but this seems a great exaggeration. While it is not true of the period we have especially in mind in this discussion, — that from the sixth to the twelfth, — it is certainly true of the centuries immediately preceding and immediately succeeding this period that Church Fathers and Schoolmen, who wrote treatises intended for general circulation, depended upon the monastic copyist to give these wide circulation.

It should be noted that many of the nunneries were quite as famous as were any of the monasteries for their manuscripts, and some for their schools also. This work of copying was peculiarly adapted to the abilities and inclinations of the female recluses.

Another aspect of this relation of the monasteries to the literature of the past is to be noted. Many of the extant manuscripts devoted to the chronicles of the monastic foundation, to wearisome comment on some older sacred writings, or to the disquisitions of the Schoolmen, are written on parchment from which a previous writing, usually of some classical texts, has been removed by chemical or mechanical process. In this way, undoubtedly, many classical texts were destroyed. They were chosen for destruction with the distinct feeling that they were unworthy of preservation. Possibly in this way some ancient texts have been irrevocably lost for all time. This destructive, and from our point of view somewhat barbarous, custom is not now believed to have been

nearly as general as once supposed. It is thought to have flourished only after the thirteenth century, by which time duplicate manuscripts were common. Then the destruction of ancient writings was due to the increased demand for parchment consequent upon the rise of universities and to the interference of the source of supply in the East by the Saracen conquests.

The Monasteries as Depositories of Literature and Learning. — One service which monasticism performed for learning cannot be gainsaid. Whatever of ancient learning and literature we have preserved to us to-day is largely owing to the monks. Though the Arabs added much during the later Middle Ages, even then such additions were given into the possession of the monks. These conservators of learning were very often ignorant of that which they preserved from obliteration; but if it had not been for such places of retirement and of protection, it is difficult to see how more than the merest rudiments of the classics would have survived from the seventh to the twelfth century. Through all this long and tumultuous period of barbarian aggression, when the remnants of classic civilization, along with the fundamentals of social structure, were being transferred to a people no farther advanced in the stage of culture than were the American Indians, the monasteries served as the safety deposit vaults of learning, whose monkish keepers were all unaware of the precious jewels within their charge. Occasional glimpses of a rare gem but convicted them of sin for yielding to the temptation offered by the riches or the pleasures of a wicked world.

While in the early Benedictine rules there is no mention whatever of the care of books, such mention appears in the later modifications of Clugny. Special rooms for libraries did not appear until much later, probably during the university period, but special provision for their care in cloister or cell had appeared long before. A monk of the twelfth

century expresses clearly the attitude assumed toward learning by monasticism long before his own time: "A monastery without a library is like a castle without an armory. Our library is our armory. Thence it is that we bring forth the sentences of the Divine Law like sharp arrows to attack the enemy. Thence we take the armor of righteousness, the helmet of salvation, the shield of faith, and the sword of the spirit, which is the word of God."

While the majority of monasteries possessed but few books, probably none outside of a strictly religious character, there were yet many that possessed hundreds and some few whose volumes mounted to the thousands. As early as the tenth century, that of Novalese, in Italy, was said to have had a library numbering sixty-five hundred volumes at the time it was destroyed by the Saracens. The few monasteries especially noted for their learning had large libraries, and gave particular attention to the collection of books through the exchange of duplicates made by the monks. Among these more noted foundations there existed a very definitely regulated system of exchange, and several of the later orders made special provision in their rules for this interchange and for the requisite work of copying. Some few made it a means of financial support. This was first definitely accepted as the chief means of support by the Hieronymians (see p. 390) very late in the Middle Ages. During the later centuries, in cathedrals, in royal palaces, even in the castles of the nobility, collections began to be made that soon were to rival those of the older foundations. But with the founding of the universities and finally with the invention of printing, the monasteries, now that their great service had been performed, ceased to give as much attention to this activity; or at least with changed conditions, the literary character of their service no longer appeared conspicuous.

The Monks as Literary Producers. — Though the range of their interests was not broad, yet until the general appear

ance of vernacular literature in the eleventh and twelfth centuries, the monks produced practically all the literature of this period. This included the lives of the saints, the short moral tales or sermons, — such as are collected in the *Gesta Romanorum*, — Biblical or patristic comment, and monastic chronicles. The Schoolmen appeared about the same time as any considerable production of vernacular literature, and during all the later half of the Middle Ages the literary importance of the monks was overshadowed by the work of these classes. To be sure, the greater number of Schoolmen were friars, whom we have included in this discussion with the monks. It is in the early half of the Middle Ages — the dark ages — that the monks had this unique position of including all learning within their organizations.

Unhampered by any restrictions upon their faith or their credulity, with the tendency to doubt and the faculty of criticism atrophied, with imagination vivified by ascetic discipline and the horrors of the life of their times, the content of many of these writings, whether ostensibly historical or biographical, is limited only by the fecundity of their imagination. History was ostensibly written for the glory of God and the advancement of the interests of the Church ; hence the accuracy of fact, the assignment of motive, the judgment of results, were all determined from this one point of view. As a result, while much of our knowledge of the political history of the times comes from these monastic chronicles, and while some of them, such as those of the Venerable Bede for England, are most excellent and furnish the chief source of information for particular periods or people, most of them are so full of inaccuracies or misinterpretations that their statements must be rigidly verified by cross reference before being accepted. However, in this respect, as in others, these monastic chronicles are probably superior to the few which emanated from the courts, for the monk was free for the most part from the motive of personal aggrandizement, being led astray

by motives of a wholly different character; namely, those of adding influence to the Church or reputation to its secular defenders. The importance, however, of such writings as the biography of Karl by Einhard and of the chronicles of Paulus Diaconus, subject as they are to many of these limitations, can be better estimated when we remember that it is said no records were kept at Karl's court because of the difficulty of finding persons who could write, and when we recall the character of the Carolingian myths that grew up to be accepted as history in the centuries following. Regarded, then, as exact annals of the times, these chronicles are more important as sources of information concerning the institutions, manners, laws, and ideas of these ages. The list of these chronicles from the monasteries of Italy, of France, of Germany, of the Low Countries, of the British Isles, as well as of the minor European countries, is a long one in each case, and it is from these that our knowledge of these few centuries is largely reconstructed.

The one other class of secular writings besides the chronicles is that devoted to the discussion of the Seven Liberal Arts or of one of the component subjects. This needs to be discussed from another point of view.

The Literary Heritage of Monasticism: The Seven Liberal Arts. — In outline the Middle Ages possessed all the knowledge of the few preceding and the few succeeding centuries; in its content this knowledge was immeasurably more meager than that of either the preceding or the following era. It is desirable to note briefly the actual character and content of the secular learning that these Middle Ages preserved from complete barbarian neglect and destruction.

The knowledge of the ancients possessed by the Middle Ages was far from being in its ancient form, for most of these writings had disappeared; it was the knowledge of the ancients organized in a much abridged form by a few learned men chiefly of the fifth century. At this time the expression,

The Seven Liberal Arts, as inclusive of all learning, came into vogue. Long before the fifth century, however, practically all these differentiations into subjects had occurred; it was reserved for the ecclesiastical and symbolical tendencies of the Middle Ages to limit the sciences definitely to seven. As we have seen (pp. 136, 145), Plato had shown the distinction between what now came to be called the *trivium*, including grammar, rhetoric, and dialectic, and the *quadrivium*, including arithmetic, geometry, music, and astronomy. Varro, the most learned of the Romans, wrote, in the last pagan century, upon the liberal arts or studies which included all of these, together with architecture, medicine, and philosophy. In his treatise on education, Quintilian omitted from the liberal studies two of them, dialectic and arithmetic. St. Augustine (p. 242) wrote a treatise on two of these, and stated that he intended to write on five others. Writing in the same period, Capella completed his treatise on the seven in which all knowledge was presumed to be summarized. It is said by Professor Davidson, however, that the first actual use of the numeral seven in connection with the liberal arts was by Rabanus Maurus in the ninth century. It is certain, however, that Cassiodorus, in the sixth century, and Alcuin, in the generation preceding, had justified the study of secular subjects recognized by Rabanus Maurus, by identifying them with the seven pillars of the temple of wisdom.

Martianus Capella, mentioned above, was one of the best representatives of the pagan culture in North Africa, and wrote (between 410–427 A.D.) a treatise entitled *De Nuptiis Philologiae et Mercurii* (The Marriage of Philology and Mercury), which, throughout the first half of the Middle Ages, was used more widely than any other book as a text of the ancient learning. The god Mercury desires to marry, and all the machinery of the pagan heaven is set in motion, first to determine to whom, and then to celebrate the consummation of the marriage to the most learned maiden, Philology. The

seven bridesmaids, or handmaidens, presented by Phœbus, are the Ars Grammatica, Ars Dialectica, Ars Rhetorica, Geometrica, Arithmetica, Astronomia, Harmonia, and each, as led forward in the ceremony, gives her parentage and expounds to the assembly the substance of the art typified. These speeches contain in the driest of text-book form practically all of the learning of the schools of these centuries. While Capella follows the order and arrangement of Varro, the substance of his works is borrowed from Cicero, Pliny, and Solinus, and from less important writers.

Boethius (c. 480–524). Though no more prominent than Capella through the use of his books in the schools, Boethius was the most influential of all the learned men of the early Middle Ages. His chief service was to give to several succeeding centuries the little knowledge of the Greek writers, especially of Plato and Aristotle, that they preserved. His purpose was to translate all the writings of these two philosophers into Latin; he accomplished, however, only a small portion of his task, and of that but little was known during these centuries of darkness. While some of his briefer treatises gave impetus to the early scholastic movement, his more important works were not known until the twelfth century. He gave to the Middle Ages logic and ethics, or the basis of the entire dialectic element in their education, and also wrote on arithmetic, geometry, and music. These works of his were extensively used as text-books; the one on music continued to be employed in some universities until well into the eighteenth century. His most widely read and influential work was the *Consolations of Philosophy*, written during his imprisonment just preceding his martyrdom by the Emperor Theodoric, whom he had served so long and well. Through this, — the most widely read secular work during all the Middle Ages, — the early half of this period received most of its ideas of the ancient philosophers and moralists. Though his writings afford practically no evidence of his avowal of a

Christian faith, he was accepted by the mediæval Church as a Christian, and thus his writings, the last product of pagan culture, were incorporated into the traditions of the Church.

Cassiodorus (c. 490–585), the prime minister of at least four of the early barbarian emperors, or Gothic kings, and thus to them the interpreter of Latin culture as well as the exponent of their will to the conquered Romans, derives his chief importance from his political activities; but the latter half of his long life was spent in a monastery which he himself had founded. Here he wrote for his monks commentaries, text-books, and an educational treatise containing a presentation of the seven liberal arts. For the world, he wrote his chronicles. Cassiodorus laid great emphasis upon study by the monks, urged them to give great attention to classical writings, directed that those without interest in letters should devote themselves to agriculture, but should read Cato, Columella, and other writers on agriculture. Much of his wealth he devoted to the collection of manuscripts, and through his influence the custom of copying these as a specific part of the work of the monasteries became established. There is much basis for the view that the preservation of learning in the monasteries was due more to Cassiodorus than to Benedict. To the influence of Cassiodorus was largely due the dissemination of the custom, begun by one of his monks in 562 A.D., of dating from the Christian era. While the lives of Boethius and Cassiodorus, often described as the great twin-brethren, ran in similar channels, had similar objects and resulted in similar influences, yet the interest of the former was in the learning of the past, that of the latter in the learning that was to be in the future. Hence, while the former is most often described as the last of the Romans, the latter becomes the first of the new type of scholars who would devote all learning to the advancement of the interests of the Church.

Isidore (c. 570–636), bishop of Seville, is the distinctive rep-

resentative of the mediæval learning. For his monks and clergy he composed an encyclopedia called *Origines* or *Etymologies*, which purported to be a summary of all knowledge worth knowing. Its general content is of interest as giving some idea of the learning of the times. Books I–III are on the liberal arts; IV is on medicine and libraries; V, on law and chronology; VI, on the books of the Bible; VII, on the heavenly and earthly hierarchies; VIII, on the Church and on sects (sixty-eight in number); IX, on languages, peoples, etc.; X, on etymology; XI, on man; XII, on beasts and birds; XIII, the world and its parts; XIV, on physical geography; XV, on political geography, public buildings, land surveying, and road making; XVI, on stones and metals; XVII, on agriculture and horticulture; XVIII, on vocabulary of war, litigation, and public games; XIX, on ships and houses, dress and personal adornment; XX, on meats and drinks, tools and furniture. This seems a broad outline, capable of including a wide scope of learning; but it must be remembered that many of these books are little more than catalogues of names; that many are filled with odds and ends of information or error; that most of the contents is drawn from ancient authors, and this not at first hand; that its dreariness is about as far from inspiration as possible; and that, though including, as it did, all knowledge, it was yet in one volume. Though familiar with portions of the writings of the Greeks and Romans, Isidore forbade his monks to make any use of them whatever, and his book, through the excellency it possessed, partially prevented monks or students in general from going any farther. Such, indeed, was the general influence of this entire class of books, of which numerous others, by the few learned monks, followed in subsequent centuries. Some of these are to be noted under the next topic.

Content of the Seven Liberal Arts. — Another aspect of these intellectual possessions of the Middle Ages is to be consid-

ered. One can hardly estimate the extent and the value of their learning until the content of these liberal arts is noted. Geometry, for example, always included the rudiments of geography; astronomy included physics; grammar included literature; rhetoric included history. The actual extent to which the literature of the ancients found any place whatever under grammar and rhetoric is a question to which very diverse answers are given and which is very difficult to decide. Isidore and Cassiodorus knew Greek and possessed a small library of Greek classics; but during the following century the knowledge of the Greek language almost disappeared from Western Europe. It is believed that this knowledge was kept alive throughout the entire Middle Ages by the Celtic monks of the British Isles; but, while a general knowledge of Greek was undoubtedly preserved there much longer than on the continent, it only in rare instances survived these centuries of the dark ages. Alcuin had some knowledge of the language, but little of the literature; though some of his predecessors and successors had more. Even the indirect knowledge of Greek literature, through Latin translations or rather summaries or extended references by such writers as Boethius, was very meager, as, indeed, was that of Latin literature. Some of the writings of Virgil and of Cicero were well known. For the most part, however, monasteries possessed but very few of the works of classical authors. In the book list of the library of York, Alcuin mentions Boethius, Pliny, Aristotle, Cicero, Virgil, Lactantius, Lucan, Donatus, Priscian, together with all of the important Church Fathers and several minor Latin authors. It is stated, moreover, that this catalogue shows the library at York in the eighth century to have been greater than that of any other in either France or England until as late as the twelfth century. The extensive use of the pagan literature in the monastic schools at St. Gall during the tenth and eleventh centuries has been mentioned (p. 256), and in many monastic records, the mention of their possession

of certain classical works, usually those of Virgil, Ovid, and Cicero, is to be found frequently.

Nevertheless, the general attitude toward this literature and its study was distinctly hostile. Alcuin tells his pupils at Tours, "The sacred poets are sufficient for you; there is no reason why you should sully your mind with the rank luxuriance of Virgil's verse." Showing a certain devotion to their studies on the part of some monks and the general attitude toward the classic writers, Peter the Venerable, head of the Clugny house (during the twelfth century), writes as follows: "See, now, without the study of Plato, without the disputations of the Academy, without the subtilties of Aristotle, without the teaching of philosophers, the place and the way of happiness are discovered. You run from school to school, and why are you laboring to teach and to be taught? Why is it that you are seeking through thousands of words, and multiplied labors, what you might, if you pleased, obtain in plain language with little labor? Why, vainly studious, are you reciting with the comedians, lamenting with the tragedians, trifling with the metricians, deceiving with the poets, and deceived with the philosophers? Why is it that you are now taking so much trouble about what is not in fact philosophy but should rather (if I may say it without offense) be called foolishness?"

One minor regulation in the rules of this same great house (Clugny) which dominated monasticism for two or three centuries possesses a similar significance. It was customary, as with all monastic organizations wherein silence was enjoined, to indicate one's wants by signs: thus the desire for a religious book was expressed by extending the palms of the hands and then making a movement to imitate the turning of the leaves of a book; but if a copy of one of the classical authors was wanted, the wish was indicated by imitating the motion of a dog scratching his ear, thus showing the proper disposition toward the work of the unbelieving. Significant also is

a very common attitude during the Middle Ages toward Vergil as the most prominent and most seductive of these ancient writers, wherein he is portrayed as a minion of the evil one, representative of all the temptations and wiles of this world. In fact, there arose during these centuries a very extensive Vergilian demonology that gives peculiar significance to the office of the poet as guide of the nether world, as portrayed by Dante at the close of this great historic period.

THE REVIVAL OF LEARNING UNDER CHARLES THE GREAT (r. 771–814).—The one important aspect of educational history from the seventh to the twelfth centuries that was not wholly monastic was the revival of learning under the Emperor Charlemagne. The task of this great emperor was to unify the work of the Teuton and that of the Roman, to adjust the barbarian Frank to the Roman culture, to transfer to the German, who was hereafter to build upon it, the structure of modern society, the foundations of social organization. Through the Holy Catholic Church the transfer of the religious element had been made and the barbarians were now orthodox Christians; through the Holy Roman Empire, established by Charles in 800, the political and legal structure of society was finally accepted by the Teuton. There remained to be added to these forms of external unity that internal unity which consisted in a community of ideas, of language, and of the cultural elements of social life. To bring about this union, this adoption of the Latin language, and the learning of the Church and of such of the Roman culture as survived, was the ambition of Charles.

Naturally, he used as his instruments the only educational institutions of his times,—the monasteries. The old Roman schools, if they survived at all in the chief centers of provincial learning, were of the most rudimentary sort, and had been assimilated into the episcopal or monastic schools. But this movement instigated by Charles was of more than monastic sig-

nificance. It is practically the only one by a sovereign for the fostering of education among his people, between the last of the Roman emperors and the period of the universities. The work of Alfred of England and a few similarly inclined rulers was purely personal and local.

In 782 Charles called Alcuin from the cathedral school at York to the Continent, to assist him in his attempt to revive an interest in learning. For a century or more preceding this time Irish monks had been largely instrumental in missionary and educational activities on the Continent, and the chaplains of the court of the Merovingian kings had in a way attempted to foster learning. But by Alcuin this school of the palace was developed into a definite institution, patronized by Charles himself, by other members of the royal family, and by the youth of the nobility. From it Charles drew many of his assistants in the administration of his great empire. While the work of the school was very meager in its literary character, yet its importance was great from the influence which it exerted as an example. In 787 Charles issued his capitulary upon schools, which has been accounted by some, though in a somewhat figurative sense we believe, as the foundations of modern education, — "the charter of modern thought." It commanded the study of letters both by the clergy and by the monks; by the former, since it had come to his notice that great numbers could not even read, and hence simply repeated the church services by rote, and since many of the educated showed through their correspondence with him that their education was most faulty; by the monks, that there might again be "a regular manner of life and one conformable to holy religion." Two years later, the first capitulary not having produced the desired effect, he issued another, prescribing in greater detail the study appropriate to the monks and the clergy. Several capitularies of the same year are devoted to raising the standard of character of the clergy, both morally and intellectually, and one directs the

bishops that clerics should be sought for, not only from among the servile class, but also from among the sons of freemen. One of these (that of 789) directs that "every monastery and every abbey have its school, where boys may be taught the Psalms, the system of musical notation, singing, arithmetic, grammar; and let the books which are given them be free from faults, and let care be taken that the boys do not spoil them either when reading or writing." Karl's officials, the *missi dominici*, were empowered to visit all monasteries, to enforce the provisions of these edicts, and to see that the monks lived according to their rules. At least in one bishopric, that of Orleans, there was an attempt to carry out similar provisions in regard to the parish churches, and thus to form a system of elementary schools. This gives basis to the extravagant claim that elementary education for the lower classes was more general in France in the eighth century than in the early half of the nineteenth century. On the other hand, Gibbon summarizes the whole movement by saying that "the emperor strove to acquire the practice of writing, which every peasant now acquires in his infancy." That rapid advances in learning were made by the clergy and the monks during Karl's time is evident; that these efforts were not altogether satisfactory even to Alcuin is evidenced by his great desire to withdraw from the court on account of the corrupt life of the members and the rude, almost barbarian, character of society, whose constant occupation was warfare. In 794 this desire culminated in the withdrawal of Alcuin to the abbacy of the monastery at Tours. Meanwhile, the educational movement furthered from this and other monasteries, as well as from the court, continued to thrive under difficulties. Of quite as great importance as the edicts of Karl himself, was one by the successor of Karl, issued in 817. This reactionary edict restricted the work of monastic schools to those boys who were destined for the monastic life (*oblati*).

Alcuin (735–804), who, on account of his influence upon Karl, as seen through these various edicts, is generally regarded as the most important educator during the first half of the Middle Ages, deserves some further notice. The position which Karl, in 794, bestowed upon Alcuin was the most important ecclesiastical office in France. The monastery of Tours was the richest in France, its possessions were almost a department in extent, and it was offered as a reproach to Alcuin that he was master of twenty thousand slaves. This monastery Alcuin made the center of learning in France as well as the center of influence in the Church. To him flocked the youth desirous of learning, and from the monastery went out an ever increasing stream of influence in the work of his pupils and disciples found in numerous monasteries throughout the land. Alcuin's ideas of education grew rather more restricted than broader; he rejected the study of the classical literature, to which as a youth he himself had been addicted; emphasized the ascetic aspect of the monastic training; and limited his pupils and the monasteries in general to the study of the sacred writings. On the other hand, while emphasizing the importance of the study of the liberal arts, within these limits, he took pains to build up a great library at Tours, sending copyists to England for this purpose, and encouraged a like activity and interest in the other monasteries. Though his learning was probably as great as that of any one of his century, yet his scholarship was limited. His great service was to bring learning to the support of the Church, and with Karl to demonstrate that intellectual training was quite as essential to the welfare of society as efforts at purely religious and moral betterment. He writes: "Despise not human sciences [the liberal arts], but make of them a foundation; so teach children grammar and the doctrines of philosophy that, ascending the steps of wisdom, they may reach the summit, which is evangelical perfection, and while advancing in years they may also increase the treasures of

wisdom." Thus following Cassiodorus, with whose writings he was familiar, and from whom he borrowed in his own writings on the liberal arts, he identifies these latter with the seven pillars of the temple of wisdom and thus gives this study Biblical sanction. He himself wrote on *Grammar*, on *Rhetoric*, on *Dialetic*, on *Arithmetic*, and on *The Seven Liberal Arts*. The treatises on the special subjects are in the catechetical form, — that of question and answer, — so familiar for centuries to come. Some of them are almost puerile in character. The arithmetic consists of fifty-three propositions, of which forty-five are in simple reckoning. Many are in arithmetical and geometrical proportion, with little or no idea of principles involved. Several are trivial catch questions of modern almanac variety, such as "After a farmer has turned thrice at each end of the field, how many furrows has he drawn?" Alcuin's reputation as a scholar depended upon his several works on grammar.

Rabanus Maurus (776–856) was the ablest and most noted pupil of Alcuin. As the abbot of Fulda, the first and most important monastery and school in North Germany, he exerted an influence in this region similar to that of Alcuin in Frankland. His chief work was an encyclopedia similar to that of Isidore, upon which it was founded. Like Alcuin, he had some slight knowledge of Greek, but being of more virile mind his chief interest was in dialectic instead of in grammar. Dialectic he terms the science of sciences, which teaches us how to teach and how to learn. Another important work upon *The Education of the Clergy* contains a treatise on the seven liberal arts and hence covers the entire field of education of his day.

Joannes Scotus Erigena, or John the Scot (c. 810–c. 875), the most noted successor of Alcuin in the palace school, was called by Charles the Bald, about 845, from the British Isles as Alcuin had been by Karl. Of greater scholarship than either Alcuin or Rabanus, he introduced the study of

the Greek language and brought a wider knowledge of the ancient learning, and especially of the Greek fathers, than had hitherto been found among the Teutons. With a much more liberal attitude toward the pagan authors, with whom he had a fairly wide acquaintance, he made the work of Capella the chief text in secular learning in the monasteries. Of more vigorous mind than any of his predecessors, he laid more emphasis upon the study of dialectic than had any before him, and being somewhat heretical in his views, he stimulated an unprecedented activity in theological discussion. With John begins the long conflict between realism and nominalism, though there followed what might be termed an intellectual interregnum of more than a century. The work and influence of Rabanus Maurus and John Scotus lead directly to the great revival of intellectual interest in the later eleventh and the twelfth century, which will be discussed under scholasticism.

§ 3. MYSTICISM. EDUCATION AS A SPIRITUAL DISCIPLINE

NATURE OF MYSTICISM. — One other type of education is of importance, in that it supplements the other aspects of the disciplinary conception of education. Since practically all mediæval mystics were monks, as far as its personnel is concerned, this type of education bears a close relationship to the monastic. Since, through its very nature, mysticism can have influence upon but few people, its importance is far greater in the history of philosophy and of religion than in that of education. While its presentation need concern us but briefly, it is desirable to have at least a general conception of its meaning in order to appreciate the intellectual life and the conception of education prevailing in the Middle Ages.

As a type of life, mysticism differed from the ordinary unreflective life religious or secular, from monasticism the organized religious life, and from scholasticism the organized

intellectual life; it possessed an education peculiar to itself. For an age such as ours, educated from the most realistic point of view, it is all but impossible to do justice to the tenets of mysticism; it is impossible for one not sympathizing with these views to understand their full meaning; it is probably impossible for any one adequately to define this type of thought in simple terms. Mysticism was the belief that the aim of life was to attain to perfection of the soul, to the highest knowledge, and to spiritual satisfaction by means of appropriate training. This was to be accomplished through the elimination of all that comes through the senses, by the withdrawal of the mind within itself, and through the identification, in the world of spirit, of the individual with the infinite reality or whole. Mysticism is defined by a modern scientific critic as "a state of mind in which the subject imagines that he perceives or divines unknown and inexplicable relations among phenomena, discerns in things, hints at mysteries, and regards them as symbols by which a dark power seeks to unveil, or to indicate, all sorts of marvels." A more sympathetic way of stating the same idea is that "mysticism is the consciousness that everything that we experience is an element, and only an element in fact; *i.e.* that in being what it is, it is symbolic of something more." Philosophically, mysticism has been defined as "the filling of the consciousness with a content (feeling, thought, desire) by an involuntary emergence of the same out of the unconscious." From the religious point of view, "Mysticism is the tendency to approach the Absolute morally, and by means of symbols."

There is both a philosophical and a religious element in mysticism: philosophically, it is an attempt of the finite mind to understand the ultimate nature of things, to comprehend the divine essence or the spirit of God as it pervades and rules all matter; religiously, it is the effort to come into actual and immediate communion with the Deity. To the mystic, "God ceases to be an object and becomes an experience." By means of ecstatic experiences the mystic seeks to become

"a partaker of the divine nature." As a religion, it becomes the most intense and extreme of soul experiences; as a philosophy, the most abstract and idealistic, while at the same time possessing a strong rationalistic bent; as an education, it becomes the most extreme, though the least widely influential, type of the disciplinary conception.

THE ORIGIN OF MYSTICISM can affect its educational bearing but slightly, so needs but to be suggested here. From the nature of mysticism, as already described, it will be seen that it is not a definite type, but rather a belief in various forms among different people and at different times. Less natural to the religion and the life of the West than to that of the East, it is a feature essential to both the religions and the philosophy of the latter. Both to the Buddhist and the Brahman, the phenomenal world is an unreality, and the mystical absorption of the soul with the divine the highest goal. To a less extent, in both the Persian and the Mohammedan religion mysticism finds a place. The very term comes from the mysteries of the Greek religion, from which the idea of shutting in things not to be revealed was carried over to the idea of shutting out all things of the sense in order that the revelation might be given. In Plato the idea of rising to the infinite through a series of related phenomenal existences, and the finding in this same phenomenal world a symbol or type of the spiritual, gave a basis for the belief of those who would seek reality in this world of ideas by fleeing from the world of phenomena. In the writings of St. John and St. Paul, relating to Christian doctrine and Greek philosophy, and full of the technical terms of the Greek mysteries, the Christian mystics found the basis for their beliefs. In the Alexandrian schools of Philo the Jew, and later in the works of the early Church Fathers, similar interpretations are found. Clement made knowledge — knowledge similar to the Socratic type, "the thinking of holy things" — greater than faith

This knowledge, though aided by intellectual training, was in itself a contemplation. Christianity was looked upon as of two types: the popular irrational faith and the knowledge or spiritual Christianity gained through wisdom. Their resemblance to the dominant heresy of the times — Gnosticism — rendered these teachings somewhat dangerous. In fact, throughout the Middle Ages mysticism showed a tendency toward rationalism, certainly toward a greater freedom of thought, and hence toward heresy.

The mediæval Christians drew their mysticism directly from Plotinus and the Neoplatonic philosophy of the later Alexandrian schools and from Dionysius, who, though writing in the late fifth or early sixth century, was supposed to have been a disciple of St. Paul. John Scotus (p. 278) revived their teachings. In the eleventh century a new type of mysticism sprang up under the leadership of the monks of St. Victor, distinguished from the former type by its attempt to harmonize mystical thought with scholastic formalism and terminology.

While the type of education represented by the mystic was not of general application, it is the freest from the restraints of institutional authority; it lays peculiar stress upon reason in its development of the contemplative mind and gives a completeness and a peculiar interpretation to the mediæval idea of disciplinary education.

THE EDUCATION OF THE MYSTICS was based upon a psychology formulated largely by Plotinus. These peculiar doctrines appear not only in the writings of Christian mystics, but color most of the treatises on the soul written throughout the Middle Ages by numerous Churchmen, both mystics and Schoolmen. In these treatises their psychological ideas are found. The soul is immaterial and immortal because it belongs to the world of reality, that is, of ideas or spirits. Its nature is threefold: the lowest, or animal part is bound

up with the body; the logical, or reasoning part of the soul is its peculiarly human aspect; the third, the superhuman, or spiritual part is that by which or in which man is identified with the highest intelligence, that is, the divine. Hence there are three excellencies of the soul; three stages of experience.

The higher stages are reached by a withdrawal from the world of action and of sense into the world of thought. The world of action is but the shadow of the world of thought; hence the latter alone is reality. Action is the shadow of contemplation. "Action is coarsened thought," as a modern writer formulates it. God, reality, as transcendent and infinite, is to be approached and apprehended by analysis and abstraction, through thought, through the shutting out of all impressions of sense and a sinking into one's thought-self. "The way to God is to descend into one's self," said Hugo St. Victor; and Richard of the same school puts the same thought in similar words, "If thou wishest to search out the deep things of God, search out the depths of thine own nature."

After the development of scholasticism the stages of mystical education were formulated somewhat more definitely. The first step was that of purification, or purgation, similar to Aristotle's idea of purgative education and to the asceticism of the monks. All obstacles to the vision of the divine, consequently all impressions of sense, all material and worldly interests, were to be eliminated. In this connection an elaborate ethical system was developed, often including the social virtues as well as the discipline of self. The second stage was the illumination of life; as the first stage was a struggle with the outer life, so this was a struggle with the inner life. Good works are now performed spontaneously and need no thought. The whole nature, will, intellect, emotions, was to be concentrated upon religious ideas, that is, spent in devotion. The third stage, the unitive or contemplative life, was the goal of the mystic, and was to be reached by no other. This life was a continual approximation to the life of God,

in which man beheld the divine and was assimilated in it. In his *Eruditionis Didascalicae*, probably the most direct and important educational treatise by a mystic, Hugo St. Victor indicates these three stages from the educational point of view as cogitation, meditation, contemplation. Above the ordinary unreflective life, and separated from it by a gulf, comes the life of thought, of cogitation, of Aristotelian analysis. Separated from this by a similar distance is the life of meditation, approximating the Platonic life of contemplation, and resulting in the knowledge of ideas through dialectics. Above this again, now Christianized and rendered more spiritual, is the stage of contemplation, wherein the vision of the divine is vouchsafed to the Christian mystic, and to him alone. It is not to be wondered that in comprehending or in presenting this conception of life and its appropriate education there arises some difficulty.

Aside from this philosophical mysticism there was a practical type, very similar in its stages, but attainable by the unlettered through devotion. The importance of philosophical and intellectual training is replaced by the corresponding emphasis placed upon symbolism, which was of minor importance in the more rationalistic mysticism. While it was this latter that was of greatest importance during the Middle Ages, it is only the symbolic mysticism, that which finds in each material entity a portion of the divine and a symbol of it all, that has any considerable influence upon modern education. Even then, as it appears in the teachings of Froebel (see Chapter XI), it has little connection with the disciplinary conception of education.

§ 4. CHIVALRY. EDUCATION AS A SOCIAL DISCIPLINE

ORIGIN AND NATURE OF CHIVALRY. — Chivalry represents the organization within secular society of those recognizing the highest social ideals and attempting to realize them

through definitely established forms and customs. Chivalry was to the secular life what monasticism was to the religious life. It did not necessarily include all of the nobility, but only those who definitely accepted the highest obligations of a social character, sanctioned, as these obligations were, by the Church. Knighthood and the chivalric character were not inherited as nobility was. They were not the gift of birth, though only the free born and those who possessed some land, and who consequently could command the support of some subordinates, could hope to attain to its distinctive characteristics. While toward the close of the chivalric period knighthood was sometimes conferred in youth, even in infancy in the case of the royal family, for the most part it could not be attained before the age of twenty-one and then only after a long period of training, through which the knightly traits of character were developed, and after some deeds of daring that revealed the most striking of these. As the institution of chivalry represents the education which secular society received, so this training formed the only education of the members of the nobility. Like all education during the Middle Ages, this education was a discipline, both for the individual and the social class, but one in which the intellectual element was even slighter than that in monasticism or mysticism. Says Cornish: "The consecration of the Teutonic soldier to a rule of life, a brotherhood and equality of noble service, a discipline of lifelong obedience, a sense of personal honor and rectitude, though inferior to the Roman conception of civic virtue, was an education of those who bore rule in the world, and made them more worthy of the position which they had won and maintained by force, than if they had never bowed to the yoke of the Church and learnt from her teaching the lesson of *noblesse oblige*."

The origin of chivalry is found in the character and customs of the Teutons, influenced as they were by the structure

of Roman society, upon which they built modern institutions and by the Christian Church, which directed their energies into particular channels and discovered to them in many of the teachings of Christianity a bond of sympathy between the Church and the worthier traits of character of the barbarians. In the centuries between the final overthrow of Roman society and the definite organization of society upon the feudal system in the ninth and tenth centuries, cavalry had come to be the dominant military force, and every king, baron, lord, or freeman of estate who traveled or warred on horseback, and hence had subordinates to serve him, was a knight. Knighthood and feudalism were coextensive and in many features identical, for their origin was similar. Chivalry, however, as it was organized, and in the form in which it dominated from the opening of the Crusades to the sixteenth century, was a knighthood within a knighthood, an organized life recognizing definite ideals and rules and possessing a special training that represented all the education there was for the ruling classes until the formation of definite schools of another character in the early Renaissance movement of the fifteenth century.

THE IDEALS OF CHIVALRY are those ever since accepted as the ideal of "a gentleman." This is a very different conception of personal virtue from that of classical society, and involves some radical modifications of the elements of the early Christian ideal. In speaking of the character of the leader of the first Crusade, Cornish describes the knightly character that in its weakness and its strength is not much less typical of the entire chivalric period than of the earlier century: "We observe in them [the knights] reckless courage, personal pride, and self-respect, courteous observance of the word of honor, if plighted according to certain forms, disregard of all personal advantage except military glory; and, on the other hand, savage ferocity, deliberate cruelty, anger indulged

in almost to the point of madness, extravagant display, child ish wastefulness, want of military discipline, want of good faith alike to Christians and infidels." Under chivalry these ideals, constituting the character of a gentleman, were very much more definitely formulated than in modern ages. As thus definitely organized, the knight summed up all duties of life, under his obligations to God, to his lord, and to his lady.

In one respect chivalry performed for secular life a service identical with that performed by monasticism for the religious life: it dignified the idea of service and held up to a rude and violent people, accustomed both to resent any restriction upon their liberty of action and to indulge in a most unrestrained manner temper and anger, the ideal of obedience to rule and to personal command. While this organization of society had its demerits as well and led to or sanctioned a contempt for inferiors and a regulation rather than an eradication of evil, it is difficult to overestimate its value in ameliorating the crudities and the barbarities of the life of the times through the new attitude toward service and obedience. This influence was probably the greatest or, at least, the most immediate that Christianity could exert upon the virile barbarism of the Teutons. And chivalry is largely, though indirectly, the result of the influence of the Church. Especially in the Crusades, — and with this movement chivalry first became definitely organized, — the Church consecrated the dominant militant interests and characteristics of the Teuton and secured their devotion to its interests. This ideal of a life of service substituted for one of lawless gratification, if it did not modify radically the character of their life, constituted a complete change in the direction and motive of their education.

Reverence for superiors, a consideration for inferiors, a gentleness toward all weak and defenseless, a courtesy toward all women, were further ideals or amplifications of the ideal of service and obedience. A greater gentleness of

manner, of consideration for others in deed and speech, in fact, a general amelioration of manners followed throughout all classes of society. While it is true that this courtesy and consideration were enforced by the constant threat of mortal combat if violated, and that this was a regulation of evils that sanctioned the violence of previous times, yet it was a great advance to have definite ideals of social conduct recognized by these classes of society. Such recognition implied a long course of training, a definite education upon the part of those professing to follow this new type of life.

The ideal of courage or bravery required no specific training to secure its development, but the use of arms necessary to follow this life did. The ideal of gallantry or courtesy in itself probably needed no formal instruction that it might be produced; but chivalric gallantry, the proper courtesy and demeanor in company, did require a prolonged training, for its forms were many and intricate and the entire chivalric life was one of most punctilious formal observance. The general ideals of chivalry, its effect upon society and the individual, and, by inference, the character of education demanded are indicated in this summary from Cornish: "Chivalry taught the world the duty of noble service willingly rendered. It upheld courage and enterprise in obedience to rule, it consecrated military prowess to the service of the Church, glorified the virtues of liberality, good faith, unselfishness, and courtesy, and, above all, courtesy to women. Against these may be set the vices of pride, love of bloodshed, contempt of inferiors, and loose manners. Chivalry was an imperfect discipline, but it was a discipline, and one fit for the times."

Our concern is in the organization of this discipline into an educational scheme, such as furnished to the free and especially to the upper classes in society their only organized education from the seventh to the fifteenth or even sixteenth century.

THE EDUCATIONAL SYSTEM OF CHIVALRY. — The education of a knight was divided into two distinct periods: that of the page, which covered approximately the period from the seventh to the fourteenth year, and that of the squire, which covered approximately the period from the fourteenth to the twenty-first year. Every feudal lord, of every rank, and the more prominent clerics as well, maintained a court that was attended by the sons and frequently by the daughters of the subordinate gentry of his realm. The greater gentry usually sent their sons to the court of the king or sometimes to that of one of their peers. Oftentimes the sons of kings served in their own home. But it was the usual custom for all ranks of chivalry, a custom probably growing out of the earlier custom of taking hostages, to send their children from home. In some instances, though very rarely, schools were established. For the most part the training was given through a definitely organized household or court service. Obedience and service were thus dignified by having the noblest born conform to the same ideals. For during this training sons of knights even thus waited upon the table and performed similar menial offices. By the same process, gentleness and consideration were developed in those in authority, since they had also served, and since their servants, those in personal charge of the table, of the horses, the dogs, the hawks, the bed chamber, the stables, etc., were all persons of rank.

The page began with simple service about the castle, especially in attendance upon the ladies. As he grew older he waited upon the table. This duty he continued to perform as a squire; and in addition to these a great variety of personal services to his lord. All culminated in the office of "squire of the body," who was the immediate personal attendant upon his lord in battle and in tournament.

The page and the squire were supposed to learn "the rudiments of love, of war, and of religion." The "rudiments

of love" were courtesy, kindliness, gentleness, pleasant demeanor, generosity, the knowledge of the very elaborate formalities of conduct, good manners, pleasant, even stilted, speech, and the ability to turn a rhyme. Love was to protect the youth from the evils of anger, envy, sloth, gluttony, and excesses of all kinds. The rudiments of love were to be acquired through service to the ladies and through the teachings of the minstrels. It often happened that to these things the squire added the ability to play the harp and to sing. The squire had in particular to devote himself to the service and the amusement of the ladies of the court. He participated in their hunting and hawking expeditions, in the entertainment of the court, perhaps in the reading of chivalric literature and in the game of chess. Chaucer thus describes the squire: —

> "Syngynge he was or floytynge [playing], al the day;
> He was as fressh as is the monthe of May.
> Short was his gowne, with sleves longe and wyde.
> Wel koude he sitte on hors and faire ryde;
> He koude songes make and wel endite,
> Juste and eek daunce and weel purtreye and write.
> So hoote he lovede that by nyghtertale
> He slepte namoore than dooth a nyghtyngale;
> Curteis he was, lowely and servysable,
> And carf biforn his fader at the table."

The ability to just, spoken of by Chaucer, was the chief of the rudiments of war. The justing in the tournament was the chief preparation for war; in time it became a substitute. For this the youth was trained from his earliest years in the ability to ride, to handle the shield, to wield the sword, to tilt with the lance, to cast the javelin, to exercise in armor, — in fact, in every martial exercise. Tilting at a revolving target, either in boats or on horseback, was much practiced. Hunting and hawking furnished training for warfare as well as the chief amusements of the nobility. The latter, which was

chiefly the hunting of water fowl, was the peculiar privilege of the nobility. This training in the rudiments of war developed an ability to withstand all hardships of life in the open air, an indifference to pain, an ability to withstand hunger and fatigue.

As the period for knighting drew nigh the religious aspects of chivalry were emphasized. Throughout the ceremony, which usually required some weeks of religious service, the Church attached the nobility to it and sanctioned and directed their warlike activities. The prospective knight must go through ceremonies of purification, his sword was blessed by a priest, and in the ceremony, frequently if not usually held in a church, he swore "to defend the Church, to attack the wicked, to respect the priesthood, to protect women and the poor, to preserve the country in tranquillity, and to shed his blood in behalf of his brethren."

In all of this training there is little of the intellectual. In the earlier centuries of chivalry it was an effeminacy to know how to write; in the later centuries the knowledge of reading and writing both among men and women of the upper classes was quite common. The knowledge of the French language — the language of chivalry — was quite necessary. This study of French and the song and music of the minstrels were the only literary elements in this type of education. However, there were occasional instances of more marked attainments.

One of the early English texts gives this description of the aim of chivalric education: "To lerne them [the future knights] to ryde clenely and surely; to draw them also to justes; to lerne were their harenys; to haue all courtesy in wordes, dedes, and degrees; dilygently to kepe them in rules of goyinges and sittinges after they be of honor. Moreover to teche them soundry languages and othyr lernyings vertuous, to harpe, to pype, sing and daunce." [1]

[1] Furnival, *Education in Early England*, p. ii.

§ 5. SCHOLASTICISM. EDUCATION AS AN INTELLECTUAL DISCIPLINE

NATURE OF SCHOLASTICISM. — Scholasticism is the term given to the type of intellectual life, and hence of education, that prevailed from the eleventh to the fifteenth centuries inclusive; that was largely responsible for the origin of universities, and represented the work of these institutions for three or four centuries; that produced a vast literature; and that possessed very distinct characteristics of its own which mark it off from modern intellectual life. Definite though narrow in its aim, restricted in its subject-matter, keen and subtle in its method, fruitful in its outcome in the development of certain mental traits and abilities, extremely limited in its social influences, scholasticism was a type of intellectual life that has been as grossly abused and as much underestimated during the centuries following its overthrow by the Renaissance movement of the sixteenth century, as it was overvalued by its own devotees. Scholasticism is not characterized by any common group of principles or beliefs, but is rather a peculiar method or type of intellectual activity; consequently it is very difficult to give any accurate definition of the term. Most attempted definitions merely give descriptions of its external features, its methods, its subject-matter, or of the time limits within which it prevailed. Without attempting a further definition, let us consider the purpose, the content, the form, the method, the defects, the objections to scholasticism, and its results from the educational point of view.

THE PURPOSE OF SCHOLASTIC THOUGHT. — The dominant characteristic of the intellectual life of the early half of the Middle Ages was the attitude of unquestioned obedience to authority; of receptivity to all doctrines, statements or incidents sanctioned by the Church; of dependence

upon formal truths dogmatically established; of an antagonism to any state of doubt or of questioning or of inquiry as wrong and sinful in itself. By the eleventh century a new attitude was necessary. Heretical views had crept in from the East, and had to be met by argument as well as by force; a few men of exceptional learning for the times, especially John Scotus of the ninth century, had suggested many questions that could not be ignored; the study of dialectic, which had received new and unprecedented emphasis from the time of Rabanus Maurus, had stimulated an interest in intellectual activity and in the logical formulation and statement of religious beliefs; and the Crusade movement, with its breaking down of the isolation and the rusticity of the people of the West through their contact with the variety of beliefs in the East — all these stimulated new intellectual interests and made it necessary to state religious beliefs in new forms. The purpose of scholasticism was to bring reason to the support of faith; to strengthen the religious life and the Church by the development of intellectual power, and by silencing, through argument, all doubts, all questionings, all heresy. Faith was yet superior to and anterior to reason. The *credo ut intellegam* ("I believe in order that I may understand") of Anselm was the dominant principle throughout the period. But at the same time it was the belief that there was no conflict between reason and faith, and it was the constant purpose to show this harmony between reason, with its newly given liberty, and the doctrines so long accepted by the Church. Church doctrines had long been formulated; they were now to be analyzed, defined, systematized. As in the past, synods had declared that the sun turned round the earth, had determined the exact way in which the painter should represent the beard and the robes of a saint, so now in a similarly minute manner authority prescribed the beliefs of the people. It was necessary that authority should be organized and present a systematic completeness. This was the

purpose of scholasticism in its broader meaning Since scholasticism includes the questionings raised by reason as well as the refutation of these doubts, or the solution of these problems, the entire period may be looked upon as a conflict of reason with authority; and scholasticism is often so defined. But the dominant attitude was not one of protest but of conciliation.

Educationally, the purpose of scholasticism was included within this broad purpose. Scholastic training aimed to develop the power of thus formulating beliefs into logical system, of presenting and defending such logical statements of beliefs against all arguments that might be brought against them, without at the same time developing an attitude of mind that would be critical of the fundamental principles already established by authority. In other words, relying upon authority it sought to avoid developing the attitude of inquiry, of hostility to the acceptance of any statement without a preliminary inquiry into its rational validity; it did not desire to stimulate the attitude of honest doubt, which in modern educational thought would be considered the only proper preparation of the intellectual soil for such sowing of the seeds of truth as promised fruitful returns. In a more general way the aim of scholastic education was to systematize knowledge, to give it scientific form. But to the scholastic mind knowledge was primarily of a theological and philosophical, that is, metaphysical character and the scientific form valued was that of deductive logic. In this, the aim of scholastic education was brilliantly successful; for there were elaborated most exhaustive systems of knowledge, compassing the whole range of their interest in a most effective manner, and in some cases of such profundity that these systems have few rivals in more modern times and yet serve as the basis and content of the intellectual life of large portions of modern society.

The third aspect of the educational purpose of scholasticism was, then, to give to the individual a mastery of this

systematized knowledge, now reduced to propositions and syllogisms all united into a logical whole.

THE CONTENT OF SCHOLASTICISM. — From the previous statement of the purpose of scholasticism, it follows that the content expressing the realization of this purpose was the complete fusion of theological and philosophical material. It constituted the complete reduction of religious thought to logical form. All other phases of knowledge were subsumed under these, for secular interests as such had no standing. Since this organization was furnished entirely by the logical writings of Aristotle, or by such portions of them as were known, scholasticism is often defined as the union of the Christian beliefs and the Aristotelian logic. All legitimate knowledge had to be sanctioned by religion, or the Church; it had to be given its place in the logical system of scholastic thought and reduced to the appropriate logical form. To do this was the task of the Schoolmen.

The primary interests of the times were in the great doctrines of the Church concerning justification, predestination, the Trinity, the freedom of the will, the doctrine of the eucharist, etc. To give these and similar doctrines their proper philosophical statement, to reduce all to a harmonized system, to present them with answers to all objections to the orthodox view and with refutations of all unorthodox interpretations, constituted the content of scholastic literature. Now it happened that at the same period in which circumstances emphasized the necessity of supporting by reason the beliefs of the Church, a certain superficial knowledge of the fundamental philosophical problems discussed by Plato and Aristotle became prevalent; hence, in the very nature of the problem, the interpretation of the orthodox views came to depend upon the acceptance of some such view as that of Plato, and the heretical theological views became bound up with a metaphysical doctrine contradictory to that of Plato

The early Schoolmen were not aware of the conflict between the views of the two great masters concerning the theory of knowledge, or at least with the general outline of Aristotle's view, for they possessed and were guided only by those portions of Aristotle's writings that related to the logical formulation of thought, more specifically the *Categories* of the *Organon*. Plato's views that ideas, concepts, universals, constituted the only reality, became accepted by the orthodox Schoolmen under the name of *realism*. By the Schoolmen and the Church such general concepts were regarded as the archetypes in the Divine reason, and the various phenomenal existences and the species were regarded as but copies or reflections of these thoughts of the Deity. The view that such ideas or universals are only names, and that reality consists in the individual concrete objects, — in the species of Aristotle, — was termed *nominalism*. The conflict between these two schools of metaphysicians continued long and loud, through four centuries and innumerable volumes, and constitutes the material product or the content of intellectual life we are studying. As the Carolingian revival of learning had attempted to bring the ordinary learning of the ancients, their grammar and rhetoric, again into the service of the Church, so the scholastic revival was the reintroduction of ancient philosophy in the service of the Church. This philosophy was to remain under the control of ecclesiastical doctrine, already determined though not systematized, and in case of any discrepancy the latter was always the standard to which philosophical doctrine must be accommodated.

But these views were of more than metaphysical interest; they compassed all interests. Consider, for a moment, the application of the views to some of the fundamental doctrines previously suggested. At this period the doctrine of transubstantiation had peculiar practical importance, on account of growing heresies, especially the Manichean, which held, on account of the belief in the evil of matter, that Christ's life

was only an appearance and that the true God was not the God of the Old Testament. If ideas or *substances* are realities, as the realist held, and are hence independent of the attributes or qualities which identify them in the concrete and which to the nominalist constitute the only reality, then it is possible to distinguish between the substance and the accident, and it is possible to conceive of a change in the substance without any corresponding change in the attribute. Only thus could the Church justify its belief in the doctrine of transubstantiation, or the actual change in the bread and wine of the sacrament of the Lord's Supper. As in this sacrament of the Church, wherein this contact between Christ and flesh was demonstrated daily, was an answer to the heresy that the divine could not have lived in contact with a wicked world; so in the general doctrine of realism, with its distinction between substance and accidents, the general relation of finite and infinite was indicated. Other doctrines with their explanations are very similar. So these philosophical views furnished characteristic solutions to all theological problems. Almost every heresy, every divergence from the accepted view, found its justification in the nominal position, while to the realist, the orthodox view of the Church, representing as it did the universal, was the only reality, — was the truth; the view of the individual, any special interpretation which he might desire to give, was merely an "unsubstantial," temporal accident, not worthy of consideration or of toleration. To the nominalist this view of the individual was the reality; thus both his religion and his philosophy became heresy.

This is but one, though the fundamental, aspect of the philosophy of the times. It is sufficient to indicate the point in which we are here interested. The content of scholasticism is this fusion of philosophy and theology, in which all theological questions — and all secular questions became theological — were given a philosophical form and a most formal and extended elaboration. On the other hand, the most

abstract of metaphysical questions were given the form of a concrete theological problem.

The educational content of scholasticism consisted in the most noted of these systematized schemes of learning, with the innumerable comments upon them. During the twelfth and thirteenth centuries were constructed the two most noted of these: *The Sententiæ* of Peter the Lombard (c. 1100–c. 1160) and the *Summa Theologiæ* of Thomas Aquinas (1225–1274). The former of these was the most generally used text-book, and the most generally prized summary of scholastic knowledge of the remaining scholastic centuries; while the latter was and yet remains the most complete and thorough presentation of the knowledge of the times, or, to be more exact, of the theology of the Church, and was accepted, as it yet is by the Roman Catholic Church, as the orthodox presentation of its beliefs. Preliminary to the mastery of such summaries of scholastic knowledge, scholastic education demanded the mastery of the science of logic or dialectic as a preparation for the practice of the art. Therefore, the earlier years of scholastic training, after a brief preliminary study of grammar, were devoted to this study. As the development of these studies is synonymous with the growth of universities, it will be further noted in connection with a subsequent topic. In general, the content of scholasticism and of scholastic education deals with the abstract and immaterial; just as the tendency in current education is to reject all that is of this character and to deal only with that which is concrete and material in character. Hence, in respect to content, present education and present thought are so opposed to that of the period under consideration, that there is no tolerance for it at all, and hence it can be little appreciated.

THE FORM OF SCHOLASTIC KNOWLEDGE was that of a scheme of thought carefully systematized after the ideas of Aristotelian deductive logic. Logical perfection was the ideal

sought for in the completed works; these perfected works constituted the texts. Even in more rudimentary phases of the study, logical arrangement was the sole aim. The idea of organizing knowledge according to principles derived from the mental condition or stage of development of the student is an idea of much later development. By this period of scholastic education the complementary principle, that of organization based upon the logic of the subject, was fixed upon education for many centuries. Hence in the introductory subjects, such as grammar, which the child first attempts in his school work, the most formal logical arrangement was adopted. The subject was presented to the child for his mastery in the order in which it appeals to the most mature mind. Previous to this time, the catechetical arrangement, that of questions and answers, was much followed, even in treatises upon the seven liberal arts. During the earlier scholastic period, the dialogue form was yet much used. But with scholasticism the systematized, logical form prevailed almost to the exclusion of the other. A very brief statement of the form of Aquinas's great work may serve as an example. The *Summa* is divided into four parts, each one of which is composed of a number of questions, each representing some great doctrinal truth, for example, the doctrine of the Trinity. The questions are divided into a number of articles, each representing some subtruth under the general truth. Following the statement of the problem under each article, the objections or the counter solutions of the problem are stated in order (1, 2, 3, 4, etc.), then follows the argument in favor of the true solution, then the accepted resolution of the problem, and finally *seriatim* answers to each of the difficulties raised. All this is given in condensed, abstract form, in a style without any ornament or attempt at literary embellishment, and that, too, in a work that fills several folio volumes. So far as *form* alone is concerned, the most exacting requirements of modern science could desire no more; for it is most rigidly scientific in form though wholly deductive in character

THE METHOD OF SCHOLASTICISM, as indicated by its form, is that of logical analysis. In reality there were two distinct methods used by the Schoolmen and in the universities as well. The first of these, the one in most general



A MEDIÆVAL DISPUTATION.

approval, was that of the *Summa* just given. The entire subject, if a treatise by a Schoolman, or the entire text, if a course of lectures upon a text-book or subject in the university, was divided into appropriate parts, then into heads, subheads, subdivisions, etc., down to the particular proposition of each sentence. Each topic was examined most

minutely after the manner of Aristotelian logic, under the headings of formal, final, material, and efficient causes; its literal, allegorical, mystical, and moral meaning. Thus with analyzed text and comment upon the basis of each division, the student was overwhelmed with a multitude of fine metaphysical distinctions.

The other and freer method was that of stating the proposition, then the several possible interpretations with the difficulties of each interpretation, and finally the selection of the favored one. The solution favored gave rise to other problems; these in turn suggested varying solutions with their appropriate answers and their subsequently suggested problems following as a consequence. So far as approaching a definite conclusion and giving order and system to knowledge, this method was inferior to the former; but in its stimulus to thought, to the freedom of inquiry, and to general progressiveness, it was far more beneficial in its influence.

According to this method some of the Schoolmen stated their theories in the form of questions instead of in propositions, thus provoking inquiry and stimulating independent thought rather than merely suggesting varying ways of stating an accepted proposition. Thus it was possible to propose almost any view. A few such questions from the *Yea and Nay* (*Sic et Non*) of Abelard will illustrate this tendency and the daring freedom of thought sometimes shown. *Should human faith be based upon reason, or no? Is God a substance, or no? Is God the author of evil, or no? Can God be resisted, or no? Do we sometimes sin unwillingly, or no? Does God punish the same sin both here and in the hereafter, or no?*

It became customary for the radical thinker to protect himself from opposition and persecution by stating that proposed views were true philosophically but not theologically, or *vice versa;* but this subterfuge fell into disfavor with the

ecclesiastical authorities. While the customary attitude was one of complete dependence upon authority, and while a general view, accepted as orthodox, tended to prevail, yet there was considerable variety of opinion among the few. Though the prevalent view was that of realism, it is impossible to assign any given content of principles or dogmas as the philosophical content of scholasticism, for there can be found at least a suggestion of almost every phase of modern philosophical thought. In a similar way there are few modern theological views but found some exponent at some time within the scholastic period. Scholasticism, then, is primarily a method; the systematization of all thought according to the principles of the deductive Aristotelian logic, the subjection of all intellectual interests to the restrictions of logical form.

DEVELOPMENT OF SCHOLASTICISM. — Some of the causes immediately operative in the development of scholasticism have been enumerated (pp. 292–3). The liberal thought of John Scotus Erigena, who declared the identity of true religion and true philosophy rather than the subordination of the latter, produced little effect upon his age because he was so far in advance of it. It is true that the doctrinal disputes in dialectic form, especially those concerning transubstantiation, began with Scotus and his follower Beranger (d. 1088), but then the logical and philosophical interests were wholly subordinate. During the eleventh century this conflict between realism and nominalism became definitely formulated in the discussions between Anselm (c. 1034–1109) and Roscellinus (d. 1106). Anselm, called the father of scholasticism, first as abbot of Bec and later as archbishop of Canterbury (1070–1089), expounded in a number of writings the realistic position and its application to the doctrines of the Church, especially in his "Monologue of the method in which we may account for our faith." Roscellinus, a Breton canon,

attacked these positions in regard to many of the doctrines of the Church, especially that of the Trinity, on the basis of the nominalist position. Roscellinus held that logic had to do only with the right use of words, and opposed all those views which made the traditional realism of Aristotle the basis of theological belief. These disputes were continued for a century or more in various places, especially in France, and by various Schoolmen of minor importance. The number of persons attracted by these disputations was so great that a chronicle states in regard to some "that if thou shouldst walk about the public places of the city and behold the throngs of disputants, thou wouldst say that the citizens had left off their other labors and given themselves over entirely to philosophy."

The fate of Roscellinus, who was martyred, discouraged those inclined to hold the nominalistic view, which consequently did not reappear in its extreme form until the latter part of the scholastic period. The critical work of Roscellinus was continued by one of his pupils, and one of the greatest of the Schoolmen, Abelard (Petrus Abelardus, 1079–1142), who, however, opposed the extreme nominalism of one of his teachers as he did the realism of William of Champeaux his other teacher. His philosophical position, strikingly similar to that of Aristotle — a fact then unknown — was the compromise view of *conceptualism*. According to this view universals are existent, though not independent of the phenomenal form in which they exist, save as conceptions in the divine mind before creation. Abelard's position regarding the great philosophical question was a conciliatory one; but his real influence, and his writings in general, were far from it. His most influential work, *Sic et Non* (p. 301), was a collection of passages from the Bible and from patristic writings on theological questions, designed to show the conflicting ideas or views of the religious and ecclesiastical authorities. He gave no decision concerning the solution of the conflicting

views, consequently inquiry was stimulated, the importance of research emphasized; but the general impression was that faith in the unanimity and hence the reliability of ecclesiastical authority was questioned. While the theological and philosophical positions of Abelard were less radical, his influence was far more critical and far more destructive of unquestioned obedience to authority. Reason, he held, was antecedent to faith, and much of Christian belief could be supplied by reason. At least the arrogance of ecclesiastical authority was shattered; and though the man and his writings were condemned, his life blighted by persecution, his views regarded as heretical, his influence continued to exist as one of the most powerful forces in scholastic thought during the following period.

The thirteenth and the fourteenth centuries constitute the period of the complete dominance of scholasticism. During this period philosophy and theology seem to be in complete sympathy; the widest extension is given to philosophical thought in its Christian dress; theological views are elaborated into most perfect and complicated systems; reason and faith are in fullest accord. The causes of this complete triumph of scholasticism, the perfection of its system, and the wide extension of its limits, were twofold. In the first place, most of the doctrines of the Church were formulated and established as a result of the previous controversy. Certain of these, wherein complete harmony with ancient philosophy or with reason was impossible, were held to be beyond the limits of philosophical discussion. It is in this respect that the bondage or subordination of philosophy to theology is seen; for within certain established limits, perfect freedom of discussion was given. The second of these causes was the recovery of most of the writings of Aristotle, possessed to-day. The largest number of them, however, came at that time through corrupted translations or in the form of Arabic commentaries. Of the most influential of these, the

chief work of Averroës, Renan remarked that it was "a Latin translation of a Hebraic translation of a commentary on an Arabic translation of a Syriac translation of a Greek text of Aristotle." Imperfect as were these texts, they at least allowed the Schoolmen to perfect their system, for they gave them the complete system of Aristotelian logic. Besides the metaphysics of "The Master," his physics, psychology, and ethics were now introduced to furnish new material for scholastic learning. Through the modification of some Aristotelian principles, the scholastic position concerning the harmony of faith and reason prevailed throughout this period. Its educational aspect is to be discussed in connection with the universities. Mention can here be made of the names of but a few of the greatest among a host of educational leaders and writers and intellectually powerful men.

THE GREAT SCHOOLMEN. — The first of the Schoolmen to be acquainted with the entire philosophy of Aristotle and to employ it in the service of theology was Alexander of Hales (d. 1245), *The Irrefragable Doctor*, author of *Summa Theologiæ*. Vincent of Bauvais (d. 1264) was an encyclopedist. Bonaventura (1221–1274), *The Seraphic Doctor*, a Platonist rather than an Aristotelian in his philosophy, represented as did the Victorines of the preceding century the mystical tendency in thought and education. Albertus Magnus (1193–1280), called *The Universal Doctor*, was the first to reproduce the philosophy of Aristotle in systematic form and with constant reference to the Arabic commentaries that constituted so large a part of the new knowledge of the times. Thomas Aquinas (1225–1274), *The Angelic Doctor*, was the most influential of all. In his great work (pp. 298–9) he represents the culmination of scholasticism, and is its authoritative exponent both in that period and in subsequent times Joannes Duns Scotus (c. 1271–1308), *The Subtle Doctor*, was famous as a founder of a school of theology rival to that of

Thomas; his work, however, was rather of a critical and negative than of a constructive character.

The long line of great Schoolmen was closed by William of Occam (1280–1347), *The Invincible Doctor*, who revived again the nominalist views. His work was rather an attack upon the entire realist system than a formulation of specific doctrines. In general Occam denied that theological doctrines could be demonstrated by reason, and held that they were wholly matters of faith. He held that particulars alone were real and that universals were mere conceptions of the mind. Thus he prepared the way for the careful, concrete study of the objects of nature and of the mind. On the other hand, some more questionable results of nominalism were also evidenced in Occam's view. In opposition to the realists, who posited that the ideas of right and wrong were eternal and unchangeable because copies of ideas of right and wrong in the Divine mind, he taught that right and wrong depended merely upon the arbitrary will of God, and that "moral evil was evil only because it was prohibited." He rejected the prevailing Aristotelian psychology, holding that the mind was a unity, and that the distinction between the faculties was only formal or logical. In many further details of his philosophy and psychology he foreshadowed the views of modern schools, especially those of Locke and the sensationalists, and is responsible for the oft-quoted and expressive summary of these views, — "There is nothing in the understanding that was not previously in the senses." Politically and ecclesiastically Occam represented a similar protest against the dominance of the authority of the Church, consequently with him scholasticism entered its last phase, the period of decline. Whatever was vital to the spirit of progress now lived in nominalism only, and soon passed over into the new spirit of the fifteenth-century Renaissance. The old scholasticism persisted (p. 405), but it no longer represented the progress of intellectual life and developing educational ideas and procedures.

CRITICISM OF SCHOLASTICISM. — That scholasticism was a tremendous advance in intellectual life beyond that of the early Middle Ages is evident; that it possessed some decided merits peculiar to itself is at least suggested by the previous discussion; that it served as the only education of the higher or intellectual type for several centuries, and produced a succession of great men unsurpassed in their intellectual acumen, has been noted. For all that, by the fifteenth century scholasticism reached its limits, degenerated into mere form, and became an obstacle to further progress, so that it had to be cast aside as outgrown and useless by the Renaissance movement of that period. Though revived in Protestant form with but slight variations (see p. 405), scholasticism has been mentioned only with execration and derision by almost every writer, except those of Roman Catholic sympathies, during all the subsequent centuries, until the nineteenth, at least. This was especially true of the sixteenth and seventeenth century philosophers, who found it necessary to overthrow the methods of scholasticism before progress could be made. Hobbes held that "those who wrote volumes of such stuff were mad, and tended to make others so;" that "the common sort of men seldom speak insignificantly and are, therefore, by those other egregious people [the Schoolmen] counted idiots." Bacon declared: —

"This kind of degenerate learning did chiefly reign amongst the Schoolmen: who having sharp and strong wits, and abundance of leisure, and small variety of reading, but their wits being shut up in the cells of a few authors (chiefly Aristotle their dictator) as their persons were shut up in the cells of monasteries and colleges, and knowing little history, either of nature or time, did out of no great quantity of matter and infinite agitation of wit spin out unto us those laborious webs of learning which are extant in their books. For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff, and is limited thereby; but if it work upon itself, as the spider

worketh his web, then it is endless and brings forth indeed cobwebs of learning, admirable for the fineness of thread and work, but of no substance or profit."

Hallam said that their works consisted of "worthless mental abstractions, of axioms assumed at haphazard, of distinctions destitute of the smallest foundation, and with the horrors of a barbarous terminology." Criticisms such as these could be found without limit.

A factor in all of these criticisms is the scholastic use of terms; but this for the most part is but the same criticism that can be made against the philosopher or metaphysician at all times. Undoubtedly from the extent of their discussions, and the fact that these discussions contained all the learning of these centuries, this terminology was vastly extended; but there is no real criticism to be found in this. The criticism against their literary style and the corruption of the language induced has a basis in fact; but from the very nature of their interests any other style would have been out of harmony. A more fundamental criticism is that they dealt altogether with unrealities. But they dealt with the same material and used much the same methods as does the philosopher or theologian of modern times. Criticism against the one lies also against the other. The real objection here is found in the fact that this material constituted the sole intellectual interests of the time; this, however, is an indictment against the age rather than against the Schoolmen. The indictment that their beliefs, their propositions, their problems, were without any foundation, that they possessed no reality, is again one that argues a limitation in the critic as well as in the criticised. The foundation of these beliefs was primarily in authority; the foundation which a modern student seeks for his beliefs is in experience; but the Schoolmen sought to supplement the support of authority by that of reason, just as the modern student seeks to

interpret experience; only, again, reason to the Schoolmen was discovered by introspective, deductive analysis; to the modern largely by objective experimentation or by comparative induction. The valid objections to scholastic learning are not so much those pointing out its positive defects, as those revealing its negative limitations.

MERITS AND DEMERITS OF SCHOLASTIC EDUCATION. — The first great limitation of the Schoolmen, and the one sufficient to call forth the condemnation of the modern mind, was that they never stopped to inquire concerning the validity of the material with which they dealt or to ascertain whether they had all the data before attempting the conclusion. A second and related limitation was that the material they dealt with was abstract and metaphysical without being supplemented by any knowledge of the concrete and physical. Here again the scholastic attitude is wholly out of sympathy with the modern. The truths they reached possessed only formal value; they could affect primarily the thought life, and only indirectly and remotely the conduct of the people, and then of but few. They made no attempt to connect the two worlds of intellectual interests; hence they possessed no external test or criterion to judge the reality, or at least the value, of their principles. Their procedure was forever in a circle; no intellectual progress was possible until there came to prevail the nominalist position, — that the concrete, the individual, was reality. From scholasticism general principles, of formal value only, could be derived. By some keen minds of the time this limitation was realized. John of Salisbury (c. 1115–1180), a keen student, a famous teacher, a pupil of Abelard's and of other noted Schoolmen, a friend and supporter of Thomas à Becket, a Schoolman who, almost alone among the learned men of his time, is distinguished by his knowledge and love for the classics and his distaste for what he felt to be the futility of dialectic, has left in his *Metalogicus*

— one of the very few detailed accounts of the educational methods and activities of the times, — a statement of the non-progressiveness of dialectic study. After a student life at Mount St. Genevieve at Paris, under Abelard and other famous masters, and after a study of theology in other schools, he returned to Paris and thus summed up his impressions of the activities of his fellow-students: —

"And so, it seemed pleasant to me to revisit my old companions on the Mount, whom I had left and whom dialectic still detained, to confer with them touching old matters of debate; that we might by mutual comparison measure together our several progress. I found them as before, and where they were before; nor did they appear to have reached the goal in unravelling the old questions, nor had they added one jot of a proposition. The aims that once inspired them, inspired them still: they only had progressed in one point, they had unlearned moderation, they knew not modesty; in such wise that one might despair of their recovery. And thus experience taught me a manifest conclusion, that, whereas dialectic furthers other studies, so if it remains by itself it lies bloodless and barren, nor does it quicken the soul to yield fruit of philosophy, except the same be conceived from elsewhere."

One further decided limitation of the Schoolmen was the fact that much of their discussion possessed no reality; not only no reality in the concrete world of everyday life, but no validity in thought as well. Much of it consisted merely of endless and profitless discussions about words and terms. Accurate terminology is usually necessary to the progressive formulation of truth for further discovery or investigation; but there may be endless disputations about terms, "hair-splitting" niceties of thought, that have for their purpose nothing beyond the discussion. Even against the greatest of the Schoolmen such a criticism is often valid. On the other hand, much of the modern contempt for the Schoolmen in this respect is based upon a failure to apprehend their point

of view and their interest. To them all questions must be given a philosophical form and a theological bearing. Hence such trivial or even sacrilegious questions as those so often quoted to indicate the puerility and utter worthlessness of scholastic learning are upon subjects yet considered of greatest importance in the thought-world of our own times and yet productive of many volumes. "How many angels can stand on the point of a needle?" "Can God make two hills without the intervening valley?" "What happens when a mouse eats the consecrated host?" — all such questions conceal beneath their simple form the profound inquiries concerning the relation of the finite to the infinite, the attributes of the infinite, the nature of reality. Give them a form that only the trained metaphysician can understand and they constitute the profundities of thought; give them the form such that the untrained adult or the youth just beginning his course of scholastic studies can comprehend and handle, and they form the "monstrosities" of the Schoolmen.

One decided merit of scholasticism was that it stimulated intellectual interests. In the development of the universities we are to see the immediate results of this. As a stage in educational evolution, scholasticism is worthy of strongest emphasis. The education of the early Middle Ages gave little or no place to purely intellectual concerns; the entire tendency was to eliminate these. While scholasticism represents a type of such interests that finds no parallel either in preceding or succeeding times, it is also true that there are few periods in history in which interests of a purely intellectual, even metaphysical, character are prominent.

This legitimatizing of intellectual interests had a further profound result: it developed an intellectual ability no longer confined to rare and infrequent cases. The learned men of the early Middle Ages are few and widely scattered in time and place. From the thirteenth century men of learning are very numerous. As we have seen, the character of their

learning is not very highly valued by subsequent ages, bu· no one denies the acuteness of their minds. The subtlety of their reasoning is such that the modern student, trained to deal with concrete materials rather than with abstractions, finds it very difficult to follow their arguments with their fine distinctions and their multitude of accurately used scientific or logical terms. Even their discussions about words and subtleties of thought performed an extremely important function in the subsequent development of thought, because it produced a scientific and logical terminology so essential to all accurate thinking.

From the point of view of realism, scholasticism was the attempt to support authority by the intellect, to supplement faith by reason; it was the union of theology and logic, of religion and metaphysics. But from the nominalist point of view, scholasticism was the conflict of reason with authority, an attempt to overthrow religious despotism by philosophy, the desire to broaden religious beliefs by intelligence. Realism as seen in the earlier scholastic discussions concerning the doctrine of the eucharist was based upon the deceptiveness of the senses, the insufficiency of human experience as a source of truth; nominalism was based altogether upon the validity, the trustworthiness, and the sufficiency of experience. Truth was to be reached through the testimony of the senses; only thus was the validity of the general notion to be tested. To be sure, this view was rather implicit than explicit in the teachings of the nominalists; they held it as a formal truth. Only very gradually did it work itself out; only in the course of time was it realized that this position was wholly destructive of the scholastic attitude; only with the close of the period was it seen that even if the nominalist position was true, it possessed only the formal value that might also be possessed by the realist position. Philosophically, the modern point of view was to reject both; the approach of modern thought is different from that of scholas

ticism. But the nominalist influence as it became stronger and stronger had this important result: the emphasis upon the importance of experience, not now in the formal sense, but in a more material sense, as the source of truth is peculiarly characteristic of the development of the Renaissance thought as formulated in the seventeenth and eighteenth centuries. Nominalism gradually worked toward this conception; and, with its triumph in the fourteenth century, the scholastic period shortly came to an end and a new educational, philosophical, and intellectual period began.

§ 6. THE UNIVERSITIES

ORIGIN OF UNIVERSITIES. — Under the stimulus of the interest in dialectic, a number of schools connected with the cathedrals and monasteries sprang into prominence in the later eleventh and early twelfth century. The most important of these was that at Paris under William of Champeaux (d. 1121). The success of Abelard in causing William to modify his dialectic statements, the fact that Abelard took a position decidedly hostile to the dominant realism, and the resulting fact that unorthodox dialectic views thus found room for expression and a more genuine discussion concerning views was thus stimulated, soon made Paris the center of these intellectual interests. The statement that Abelard drew thirty thousand students around him at Paris is probably an exaggeration, though the other statement that from his students came twenty cardinals and fifty bishops receives greater support. Undoubtedly great numbers of students were so drawn and demanded a multitude of minor teachers to prepare them for the more profound discussions of the master. Thus the essential elements of the early university — the students and the teachers — were found at Paris before the middle of the twelfth century. With the eleventh century Western Europe, especially the Church, began to

throw off the incubus to enterprise and the obstacle to greater intellectual freedom that existed in the belief that the millennium was at hand. The fact that during the tenth and the eleventh centuries the Northmen, the last of the migratory Teutons, accepted a settled life and gave to France and England a period of comparative peace, rendered a development of the interests of a stable civilization possible. Though as yet they showed little appreciation for the cultural aspects of life, these same Normans, in fact the Teutons in general, were endowed with virile minds. Hence they were drawn to dialectic discussion, as they could not have been to a mere literary study of appreciation; and more and more as other lines of activity were reduced to the orderliness of a complex society, they turned their genius into intellectual lines. This new Teutonic blood affected Italy as well as England, France, and Germany. The papacy and the Church in general had recovered from a period of greatest degradation, and through the struggle with the Holy Roman emperors both had acquired new strength and new interests. This affected intellectual pursuits and stimulated to the study of dialectic, theology, and canon law. The development of commercial enterprise and municipal government, especially in the Italian cities, stimulated secular interests and secular learning to a point such as they had never reached before. Meanwhile the Crusade movement had begun. The isolation of European society — which really under early feudalism had not been a society but a series of isolated groups — was broken down. The communication of ideas was stimulated and the intellectual horizon broadened immensely. The "barbarians" of the East were discovered, with reason, to consider in turn the people of the West as "barbarians." The attitude of inquiry and of doubt, of freedom of opinion, which belonged to the East began to affect the West. This contact with the East and with Saracen learning brought to Europe, not only a knowledge of Arabic culture and science (first looked upon as black

art, later to be embraced as science), but it also furnished in the thirteenth century a completer knowledge of Aristotle and of Greek philosophy. These influences combined in varying proportions: no two universities were founded by the concurrence of exactly the same circumstances. Each had some causes peculiar to itself, and all the earliest ones were, in reality, special schools where one or two special studies were pursued. Only later did they offer in their curricula the entire range of higher studies.

The immediate cause of the origin of universities in Italy was not the same as that in France and England. In these latter countries they were the outgrowth of theological and dialectic interests, both growing out of the Church. In Southern Italy, where the contact with the Saracens, with the Normans, and with the old population of Greek origin was intimate, and where a more direct acquaintance with Greek literature was preserved, there had grown up, in connection with the monastery at Salerno, an interest in the study and practice of medicine. The work and teachings of the monks along these lines were stimulated by the first Crusade and the fame of this school spread abroad by the returning knights. Under the shadow of the monastic influence there grew up a school for the teaching of medicine, which in a way became the first university. Salerno itself was never organized into a chartered university, though this distinctive teaching work of a secular character was well established shortly after the middle of the eleventh century. Later the school was united to that of the neighboring city of Naples which was chartered by Frederick II as the University in 1224. In the northern Italian cities, struggling as they were with the German emperor for their rights, a new and vital interest grew up in Roman law, a knowledge of which had been allowed to fall into desuetude. The emperor based most of his claims to authority upon the rights of the old Roman emperors; the cities sought to check these claims by a knowledge of charters,

of edicts, and of legal limitations that had long been forgotten. The knowledge of Roman law had probably never been allowed to die out entirely, though it was long thought that the growth of this study dated from an alleged discovery of a copy of the *Pandects* of Justinian made in 1135 at the sack of Amalfi. However that may be, there grew up in several of these cities schools for the study of law. That at Bologna was made famous by the greatest of these early teachers, Irnerius (1067–c. 1138), in the same manner that Abelard raised Paris to distinction, and large numbers of students collected here. Thus Bologna became a center for study, and as these students and teachers were given privileges, it became the first organized university.

THE FOUNDING OF THE UNIVERSITIES. — These definite privileges, given in the form of a written document from emperor or pope, thus became the charter or charters of the institution. It was only much later that an institution was organized outright by conferring on it all desired privileges. At Bologna the first charter was given by Emperor Frederick I, in 1158. Paris received its first recognition from Louis VII in 1180 and was recognized by the pope at about the same time. Its full recognition came in 1200. At Oxford and Cambridge the date of the formal recognition by charter is yet more difficult to determine, but was somewhat later. In all these cases the large groups of students and teachers had existed for some time previous to charter organization, and schools had existed under monastic or Church control in all these centers for an indefinite period. Chartered institutions, that is those possessing special privileges, quickly came to exert peculiar influence and were rapidly multiplied. During the thirteenth century nineteen of these institutions were created by popes and monarchs; during the fourteenth, twenty-five more were added; and during the fifteenth, thirty more. By the period of the classical Renaissance there

existed some seventy-five or eighty of these institutions scattered over all the countries of Europe.

STRUCTURE AND ORGANIZATION OF UNIVERSITIES. — No individual during the Middle Ages was secure in his rights, even of life or property, certainly not in the enjoyment of ordinary freedom, unless protected by specific guarantees secured from some organization. Politically, one must owe allegiance to some feudal lord from whom protection was received; economically, one must secure his rights through merchant or craft guild; intellectual interests and educational activities were secured and controlled by the Church. In the cases mentioned, groups of students are collected in centers made famous by earlier cathedral or monastic schools, but are now no longer governed by the narrow interests of the monastic or clerical aspirant and no longer controlled by the rigid rules of these institutions. It became necessary that these groups should organize in order to regulate their own conduct, to protect themselves from extortion by citizens of the community, to secure themselves legal rights, and to maintain their interests in the face of Church authorities. By the conferment upon them of these special rights, such groups of students, or of students and teachers, were recognized as distinct bodies.

The unorganized group of students and teachers was called a *studium generale*, a name indicating either that a generality of studies was here pursued, or that the students were drawn from the widest territorial limits. Since none of these new centers of learning, in the early period, taught all the university subjects, the wide origin of the student *clientèle* is probably the primary characteristic indicated. Other features of the universities that distinguished them from previous schools were their government, democratic in its nature; their location in centers of population rather than in remote spots, such as those sought by the monasteries; their special privileges,

legal and pecuniary ; and the fact that these privileges had to be conferred by general authority, and hence that universities were founded by pope or emperor or later by kings, but could never be founded by local patrons as were monastic or other ecclesiastical schools.

Privileges of Universities. — These special privileges conferred by pope and emperor upon students and masters were the specific instruments through which the university protected itself and built itself up. In general, these charters conferred upon all masters, students, and even their attendants the privileges of clerks or of the clergy. Thus the privileges originally belonging to the teaching class and extended by the Roman emperors to the clergy of the Christian Church, in turn, were again extended to the teaching class, and developed a new professional interest and a new class in society. Such privileges exempted students from official service, from military service, except under specific limitations (*e.g.* at Paris only when the enemy were within five leagues of the city wall); from taxation, especially the petty local exactions, from contributions, etc. One of the greatest of these privileges was that of internal jurisdiction. Just as the clergy had been permitted to absorb in their privileges the right of trying their own members practically in all civil and many criminal cases, so in turn the universities developed much the same power over their own members and their adherents. This custom first grew up in Bologna under the favor of the emperor, where, since civil law was the chief study, students and masters were particularly competent to exercise this right. The civil or at least police jurisdiction which the German university yet exercises over its student members, and the special favor of a privileged standard of conduct which the American college student claims, are survivals of this once extended right.

The other important privilege is that of granting the degree, which was merely the license to teach. Previous to this time

this important privilege had been granted only by the Church through the archbishop, the bishop, or one of their subordinate officers; and thus the Church had controlled the method and the content of teaching. Ordinarily, under authority conferred by the pope, the university diploma granted the privilege of teaching in any institution wherever the authority of the university — that is, of the pope delegated by his charter — extended. This practically meant entire Christendom; and though nominally sanctioned by the pope, the authority was exercised by the university direct, and thus one important monopoly of the Church over learning was destroyed. These privileges possessed a sanction in the "right," not granted by charter but developed by usage, known as *cessatio*, the right of "striking" or of moving the university, consisting as it did of students and teachers only, if its privileges were infringed. Thus the importance of Oxford dates from a migration from Paris in 1229; the importance of Cambridge from a similar disturbance at Oxford in 1209.

Many petty privileges were developed peculiar to each university. These, such as the right to demand bread or wine from dealers on certain feast days, though all such are merely incidental, were held on to quite as tenaciously as these more important ones.

The Nations and the University. — These privileges had to be conferred upon definite bodies of people, and hence a more definite organization than the *studium generale* was necessary. The most natural division of these heterogeneous masses of students, drawn from all over Europe at a time when territorial lines were very indefinite and national distinctions were more those of a genetic than of a territorial and political character, was that of language and kinship. Hence students and masters organized into groups according to their national affiliations. And upon these *nations* singly, or more often in group organization, charters containing privileges were granted. Such a body was called *universitas magistrorum*

et scholarium. The term *universitas* means primarily "all of us" or "some of us," and had the general significance of our word *corporation* or *association* or *company.* In time, but not until the fourteenth century, the one word came to be used instead of the previous more general term.

At Paris there were four nations, the French, the Normans, the Picards, and the English (after the Hundred Years' War began the latter was changed to German). In Bologna there were at first four universities; then two, the Cisalpine, consisting of seventeen nations, and the Transalpine, consisting of eighteen nations. Finally, all were amalgamated into one organization.

A most peculiar characteristic of the Southern universities was the fact that the nations, and hence the governing bodies, were there wholly controlled by the students. Thus the students in the nations determined when lectures should begin, how long they should continue, whether the charges were legitimate, etc. In the North, where the students were for the most part those of the arts instead of those of law and were consequently much less mature, the masters themselves constituted the controlling force in the nations.

The Faculties. — The organization of the nations had to do with conduct, civil right, and ecclesiastical jurisdiction. It had little direct reference to the studies. In time, however, it became necessary to regulate studies and methods, — in fact, scholastic procedure in general. The faculties were a somewhat later development than the nations. In Paris they took shape in the second half of the thirteenth century. The term itself, quite as indefinite as the term university, simply meant *knowledge* or *science;* but in time it was applied to a department of study, as faculty of law, theology, arts, etc., and finally to the body of men, previously termed *consortum magistrorum,* that had control of a particular department of study. This body, as it developed, obtained control of the granting of degrees and was originally composed of all who had taken their degree.

Governing Body and Other Officials. — The nations elected, usually annually, a procurator or councilor; each faculty a dean; and these representatives together a rector of the university. This official head of the university possessed only delegated power, was usually elected annually, and in the South, at least, was usually a student. The real governing power of the university lay in the nations. By the sixteenth century these head officials had become for the most part political appointees, and the nations had long since lost all material authority. In the earlier centuries the Church continued to be represented directly by the chancellor, who nominally represented the archbishop in the conferring of the license to teach. This right soon became restricted to the ceremonial of the public conferment of the degree.

DEGREES. — The nature of the degree and of the entire work of the university can best be understood by a comparison with some simpler aspects of mediæval life which the student life paralleled. Such, for example, is the chivalric education, with its seven years of training as a page and seven years as a squire preceding the acquirement of full knighthood. A similar parallel can be found in the making of a master in any craft or mercantile pursuit, where the youth had first to serve seven years as an apprentice; then a more or less indefinite period as a journeyman, — a further period under a master while yet working for an independent wage,— all before he finally became a master possessing full rights in the guild. In quite a similar way the youth of thirteen or fourteen who wished to study the liberal arts, or to prepare himself for teaching, appeared at the university where he had to enroll himself with a master who was thereafter (for the first period at least) responsible for him. Here he served an apprenticeship of from three to seven years, until he learned to read the ordinary texts in grammar, rhetoric, and logic, to define the words and determine the meaning of phrases,

the use of terms and classifications. When now he could *define* and *determine* and could demonstrate this to the satisfaction of masters other than his own, he was accepted, as it were, as a journeyman workman; he continued his studies under some master, no longer being rigidly held to the one as hitherto, and at the same time gave instruction to the younger boys under the direction of a master. After a further period of study, varying with time and place, in which he demonstrated his ability to carry on a logical *disputation*, and familiarized himself with the required texts, or the course of study, he was permitted to demonstrate this ability, as a journeyman workman does by making a "masterpiece," by defending in public a thesis against the masters of the art, that is, the members of the faculty or those who already possessed the degree. This having been done successfully, he was given the degree, the licentiate, the mastership, the doctorate — whatever it might be called. Master, doctor, professor, were synonymous terms in the early university period. These degrees were all one and the same; they signified that he was able to *dispute* as well as to *define* and *determine*, and authorized him to teach publicly, that is, to determine and dispute; thus he was admitted into the guild of masters or teachers, in other words, into the faculty. He was now on a parity with other members of the faculty, and could teach in the free competition into which they all entered, providing he could obtain students.

The preliminary degree, the *baccalaureate*, — a term which signified a beginner, an inferior, an apprentice in any field, and was used in the Church, in chivalry, in the guilds, and in the country feudal organization, as well as in the university, — was simply formal admission into candidacy for the license and was not originally a degree in itself. During the fifteenth century it became a distinct stage in the educational process and hence quite well defined as a minor degree. The mastership and doctorate, so far as there was any distinction between



A Mediæval University. Lecture on Theology by Albertus Magnus (1193–1280)

them, also indicated merely two aspects of the final conferment of the privilege, — one was the more private professional test, the other the public ceremonial. The one term came to be preferred in England, the other on the Continent. That there should be three successive degrees, as in an American institution, is an anomaly or at least a result of slow historical growth, not to be found in the mediæval institution.

THE METHODS AND CONTENT OF UNIVERSITY STUDIES have been previously discussed under scholasticism. After the opening of the thirteenth century the course of study was determined by papal bull or university statute and was far more restricted than was the intellectual activity of the twelfth century. While it is true that the thirteenth century possessed far more of Aristotle than did the twelfth, this but resulted in making the work more formal and restricted. Peter the Lombard was a pupil of Abelard and held much the same theological views; but the spirit of Abelard was that of free inquiry, of investigation, of rationalism, while that of Peter was one of rigid scholastic orthodoxy. Abelard was condemned as a heretic; Peter became the master authority of the university for two centuries. The influence of the one was dangerous to the supremacy of non-rational ecclesiasticism; the influence of the other rendered it triumphant.

A brief statement of definite details will make more vivid our conception of the work of the early universities. In the school of arts were used the grammatical works of Priscian, a work on grammatical figures by Donatus, the logical works of Aristotle given through Boethius and Porphyry; the *Categories* and the *de Interpretatione* of Aristotle, and the *Isagoge* of Porphyry, from which originated the realistic-nominalistic controversy, were known in the translations of Boethius; the remainder of the *Organon* was known only through sum

maries or other writings of Boethius. To these latter the greatest amount of time was given, and even much of the time aside from the long hours in the lecture room was spent in participating in or listening to the endless disputations. At Paris the statutes of 1215 introduced the *Ethics* of Aristotle, and in 1255 his *Physics*, *Metaphysics*, and his treatise *On the Soul*. These works of Aristotle, previously interdicted at Paris, had been introduced somewhat earlier in other universities. Elsewhere some other introductory works on logic might be read, but everywhere the study of logic consumed the greater part of the time. Up to the middle of the fifteenth century, Aristotle controlled the work of the universities. The study of logic replaced all others, and rhetoric was given no attention whatever. The study of geometry and astronomy had made some progress, especially in the Italian universities and in the University of Vienna. The work of the professional faculties consisted, likewise, in the study of a few fundamental texts together with their innumerable commentaries.

The education of the early universities was wholly one of books, of a very limited selection of books in each particular field, but of books that were looked upon as furnishing in the written word absolute and ultimate authority. It was directed much more to the mastery of form and the development of power of formal speech, especially argumentation, than to the acquisition of knowledge, the pursuit of truth in the widest sense, or even to familiarizing the student with those literary sources of knowledge which, though lying within his grasp, were outside the pale of orthodox ecclesiastical approval.

THE INFLUENCE OF EARLY UNIVERSITIES. — The results of scholasticism may be taken as the results of the universities, as was true with content and method of work. There are other influences, however, to be noted. The politi-

cal influence of the universities, both direct and indirect, was marked. In the first place they furnished the first example of purely democratic organization. While in the monastery as well as the episcopal college a certain democratic freedom in the election of abbots prevailed, yet their government was essentially an absolutism. On the contrary, the officials of the early universities possessed only delegated powers and were under the immediate direction of the governing democracies. Freedom of discussion concerning political as well as ecclesiastical and theological matters here found its first home. While for the most part the sympathies of the universities would naturally be with the privileged classes, whose privileges they themselves had obtained, they often became the mouthpiece of the common people in opposition to king or priestcraft.[1]

The right of the university to a voice in the government, to a seat in the parliaments of France, England, Scotland, is a recognition of this political authority and of the fact that the university had become a great "estate." The influence of the University of Paris was unique, and as the parent and representative of all northern universities it came to represent the French nationality, as the Holy Roman Empire did the German and as the papacy did the Italian. It acquired almost as much influence in the thirteenth, fourteenth, and fifteenth centuries, as did these other great institutions.

Questions of State and of controversy between State and Church, such as the divorces of Henry VIII of England and Philip of France, were submitted to the arbitration of the universities. The university often became the mouthpiece of the nation in voicing an opposition to the papacy; and in one instance the king of France and the university compelled one pope publicly to recant his views and apologize, and in another secured the deposition of the head of the Church.

[1] See Rashdall, Vol. I, pp. 518–525.

Largely through the influence of the University of Paris the great schism in the papacy and the "Babylonian Captivity" were ended. Though most of their famous teachers of the thirteenth and fourteenth centuries were friars, the universities in general became representatives of the secular as opposed to the regular clergy and hence champions of the rights and interests of the people and the national clergy, as opposed to the encroachments of the papacy.

In a similar way the university became an authority in the settlement of disputed doctrinal points, and in the determination of questions of heresy. In holding this balance of power it tempered the extreme views of the papacy and especially of the papal representatives, — the friar bodies, — and thus mitigated, if it did not entirely eliminate, the operations of the inquisition in the north of Europe.

Politically, ecclesiastically, and theologically, the universities were the bulwark of freedom during these centuries from the dark ages to the Reformation. The constant complaint that they wished to meddle in every question is a testimony to their restraining influence on the arbitrariness of king and prelate. In them alone some freedom of expression of opinion was preserved. The one class whose opposing views monarchs were bound to respect was the university students; even in the case of representatives from foreign and hostile people, such as often formed a part of the nations of a university, but rare instances of the violation of the privileges of students occurred.

But in regard to the intellectual life, restricted, formal, and meager as it was, its greatest influence was exerted. Intellectual interests were now crystallized into a great institution, recognized as almost on a parity with Church, State, and nobility. While this interest and its resulting institutional organization were so reduced by the fourteenth or at least by the fifteenth century as to possess little but formal life, the university yet provided a retreat for the rare genius who kept

alive the spark of real intellectual life and maintained a home for the new intellectual spirit when it did come. However hostile it may have been during these centuries to innovation, to radicalism, and to rationalism, yet in preserving the spirit of speculation, the university kept alive the spirit of inquiry. And out of it came such men as Roger Bacon, Dante, Petrarch, Wycliffe, Huss, Copernicus,—the men who brought the modern spirit.

§ 7. EDUCATION AT THE CLOSE OF THE MIDDLE AGES

THE RENAISSANCE OF THE THIRTEENTH CENTURY. — It will be seen from the discussion of the last two sections that the later Middle Ages were far from being "dark ages," and that the intellectual interests and educational activities of these centuries were very great. The later fifteenth century is usually taken as the transition period from mediæval to modern times; but the idea which this section seeks to emphasize is that this transition educationally was for the most part in respect to spirit and content of the intellectual life. In these intervening centuries, the thirteenth to the fifteenth inclusive, there existed a place in social organization for an intellectual life, exerting profound influence, permitting much freedom, having definite character, possessing peculiar merits, and developing an appropriate educational system.

Moreover, with the thirteenth century, the intellectual interests and control passed from the monasteries to the schools; from under wholly ecclesiastical influences to one that while nominally ecclesiastical was in spirit chiefly secular. The leadership passed from Churchmen to doctors, who were preëminently logicians, and hence inclined to rationalism. Intellectual interests which began by being wholly religious or theological in character ended by being almost wholly philosophical and logical. It is true, on the other hand, that the dominant conception of education remained the disci-

plinary one; that the function of schooling was to develop this peculiar intellectual power of logical character that would give one the ability to state, to interpret, to define, to argue, concerning abstract conceptions; and that in respect to its outcome, however deep or intense its influence might be, it was peculiarly narrow. Yet on the other hand intellectual interests received general recognition; schools of all grades became abundant; the science of the ancients within this limited field became well known; and the educational world but awaited the development of the new spirit, which came with the fifteenth and the sixteenth century, to become modern.

Even in our judgment of the education and the intellectual life of this period, we are apt to do it injustice because of its difference in spirit from our own; just as during the intervening centuries there has been a very general tendency to deny any merit whatever to the intellectual interests and ability of the entire period, and to hold that educationally it was to be judged and condemned along with the preceding "dark ages." Nevertheless, the education and the intellectual life of these three centuries possessed some merits as characteristic as the peculiar features of the age out of which these merits grow.

The chief of all these merits, though it carried with it certain demerits as well, was its unity. There was an internal unity possessed by the intellectual life itself; there was an external unity of the intellectual life in connection with the religious, the ecclesiastical, the artistic, the political, the economical, the social aspects of life. This unity was found in the dominant religious thought. The thirteenth century possessed a unity of life and of ideas beyond any other century in history.[1] It was the last century in which this peculiar unified life of the Middle Ages dominated. Realism — a monistic idealism — was not only the philosophy of the religion, it was the philosophy of the life of the Middle Ages.

[1] See Frederic Harrison, *The Meaning of History*, Ch. V, *A survey of the thirteenth century.*

As the Gothic cathedrals, another great product of the thirteenth century, were expressions not merely of architectural art, but of the arts of painting, sculptoring, glass staining, wood carving, mosaic designing, all unified in the one dominant expression of religious sentiment, so their education was harmonized with their religious life, their political activities, their æsthetic aspirations, their moral sympathies, their mystical yearnings, their theological discussions, as well as with their intellectual development. This unifying element was embodied in the dominance of the *idea*, — of ideals as these express some form of authority. As the Church expressed the absolute authority of the religious life, the scholastic theology the same absolutism in religious belief; as the Holy Roman Empire expressed the same ideal politically, the feudal system socially, the guild system economically; so the universities on the institutional side and scholasticism on the intellectual side expressed in education the dominance of the same absolutism, the same authority.

As long as there is a widespread and general attempt to preserve this unity of life, — that is, during the fourteenth and fifteenth centuries, — the spirit of the Middle Ages persists. Nevertheless, there are continual eruptions of individualism and attempts to overthrow this absolutism, so that in these centuries the perfection and beauty of the system as seen in the thirteenth century no longer prevail. In the attempt to suppress these expressions of individuality, the harshness as well as the defects, the growing formalism and final lifelessness of the earlier period, become apparent. It is not until the later fifteenth century that this effort to supplant the dominance of authority by the general sway of individual judgment, and the development of an educational system that possesses no such unity, take place in what is known, *par excellence*, as the Renaissance. Critical and destructive tendencies then come to dominate as do the unifying tendencies during the thirteenth.

Meanwhile there are a few aspects of education during these last mediæval centuries, besides the universities, that demand brief notice.

THE FRIARS OR THE MENDICANT ORDERS came into general control of higher education by the middle of the thirteenth century. The Franciscans, or Gray Friars, were founded in 1212 and the Dominican, or Black Friars, in 1216. While the primary motive in the mendicant foundations was ascetic, they, especially the Dominicans, soon devoted themselves with their characteristic energy to philosophical study and to the control of educational institutions. The aim of the mendicants, differing from that of the earlier orders, was to save souls, to control people, to build up the Church; and to do this they sought directly to control education. The great Schoolmen were mendicants. Alexander of Hales, Bonaventura, Duns Scotus, Roger Bacon, were Franciscans; Albertus Magnus and Thomas Aquinas were Dominicans. The prolonged antagonism between the Thomists and Scotists was but one aspect of the rivalry between these two orders. The fact that they disagreed concerning important theological doctrines and thus kept alive discussions and, to a certain extent, the right of private judgment, was of great significance in the intellectual life of the times; the fact that each was at some time convicted of holding heretical doctrines somewhat mitigated the gravity of the offense for others not so powerfully connected, and postponed the day of absolute control of opinions.

The Dominicans, or preaching friars, especially sought to control leaders of thought and of the Church, and hence to establish themselves at the universities. They soon had a convent in every university town. Aiming first to "capture" bachelor or master, they soon sought to control the teaching. The dominance of Thomas Aquinas indicates a success of this ambition in regard to theology, at least. The Domini-

cans thus became the guardians of orthodoxy; while the Franciscans, with their work among the poor, their democratic sympathies and tendencies, were rather the parents of new doctrines and new practical tendencies. The fact that these bodies were preëminently preaching orders, as previous orders had not been, called for a higher degree of intelligence and for more definite training. Hence these friars became educators, in a double sense; first, in that they gave a more general education to all their members than any previous monastic order; second, in that, as preachers, they were teachers of the people and preëminently preachers of doctrine.

INFLUENCE OF SARACEN LEARNING. — The history of the learning and the educational activities of Mohammedan society would take long to narrate, but we are here interested in only one aspect of it, — its influence upon the development of education in the West during the later Middle Ages. The study of Grecian philosophy, on account of its heretical influences, especially in Gnosticism and in the Neoplatonic school, had been suppressed in the Eastern Church by the time of the sixth century and found a home among the Syrians and especially the Nestorian sect of the Christians in the region of western Asia. Here it came in contact with the Arabs and, after the Abbasid dynasty (750 A.D.), was fostered in the capitals of the East. Learned Nestorians were summoned to the Saracen courts; translations into Arabic from the Syriac or the original Greek were made; mathematics and the natural sciences, more especially the medical sciences, were fostered. During the tenth century philosophical interests were similarly developed, especially under the leadership of Avicenna (980–1037). In other words, at the time when the Christian schools of both Eastern and Western Europe were falling into decay, the schools of Bagdad, Basra, Kufa, and other Saracen cities were growing into splendid activity and great renown. The character of

this philosophical development, founded as it was upon Aristotle, was quite similar to the earlier movement in the Christian Church. It sought to substitute for the supernaturalism of the Mohammedan belief a rationalism or a mysticism similar to that of the Gnostics, and to develop a theology as well as a philosophy based upon these later developments of the teachings of Plato and Aristotle. Meeting with the same opposition from orthodox Mohammedanism that it did from orthodox Christianity, learning, both philosophical and scientific, was expelled from the East by the less enlightened fanaticism of the orthodox masses and sought a home in the West among the Moslems of western Africa and of Spain where the caliphates, independent of that of Bagdad, had been established. It cannot be said that this philosophy and learning in general ever affected the masses of the population, or that there was any great creative genius inherent in the Arabic mind. But they were quick to assimilate and to learn, and skillful in elaborating and adapting Aristotelianism to their theology and their scientific knowledge.[1]

In Spain, especially, centering in the school of Cordova, from the tenth century on, this learning received development and many brilliant practical applications. Throughout their western caliphates the Saracens established libraries, higher schools similar to universities and, in connection with the mosques in many cities, schools for the instruction of the children. While Christian Europe was enforcing as a religious belief the idea that the world was flat, the Moors were teaching geography from globes. When the Christians

[1] For a fuller convenient outline of Saracen learning, see Davidson, *History of Education*, pp. 138–149, and an article by Wallace in *Encyclopædia Britannica;* for its influence on philosophy, see Uberweg, *History of Philosophy*, Vol. I, pp. 402–428; for its relation to Christian theology, see Moeller, *History of the Christian Church during the Middle Ages*, pp. 422–435; for its influence on universities, see Rashdall, *Universities of Europe in the Middle Ages*, Vol. I, pp. 351–368; and for the general, scientific, and intellectual character of Saracen culture, see Draper, *Intellectual Development of Europe*, Vol. II, Ch. II.

finally conquered the Mohammedans, for want of the knowledge of any other use, they turned their astronomical observatories into belfries. From these Arabs came in the tenth or eleventh century the knowledge of Hindoo notation as a substitute for the cumbersome Roman method. Knowledge of algebra, as well as of advanced arithmetical processes, came from a similar source. In medicine, in surgery, in pharmacy, in astronomy, in physiology, they added much that is now considered elementary. They explained the refraction of light, gravity, capillary attraction, and twilight; they determined the height of the atmosphere, the weight of air, the specific gravity of bodies; they constructed various astronomical tables, determined corrections for parallax and for refraction; they invented the pendulum clock; in commerce, in geographical explorations, in navigation, in improvements in all the arts of life, their culture was far ahead of that of the Europeans; they introduced the use of rice, sugar, and cotton, and the cultivation of silk; they made Europe familiar with the use of the compass, of gunpowder, and of cannon. Thus in many ways the Arab culture served as an educational agency to bring the civilization of the West to a higher level.

But it is in regard to the influence on the schools that we are more directly concerned. By the twelfth century all intellectual vitality had been crushed out in the East, while it was in its most flourishing condition in the West. In the middle of the twelfth century Raymund, archbishop of Toledo, commanded a Jewish scholar to translate the leading works on Arabic philosophy into Castilian; by monks it was translated thence into Latin. Shortly after this the Emperor Frederick II had the commentaries of Averroës and other Aristotelian writings translated. Only a brief period intervened when, as a result of the Latin conquest of Constantinople, 1204, the Greek version of Aristotle became known and direct translations were made. By the thirteenth

century rigid and narrow orthodoxy had triumphed in Saracen Spain, and Aristotelianism and Averroëism were driven out from their previously flourishing seats to find a new home among the Jewish philosophers and in the Christian universities.

Averroëism, at first identified with rationalistic free thought, became, as previously had Aristotelianism, reduced to orthodoxy. At least, this was true so far as it was a commentary upon Aristotle. With the renewal of nominalism in the fourteenth century, the master, upon being given the right to incept, took oath to teach no doctrines contrary to those of "Aristotle and his commentator Averroës." In this form, as well as in the study of medicine and astrology, Arabic learning continued to exert an influence throughout the Middle Ages, when every spark of intellectual vitality had long passed from the Mohammedan population itself.

FEATURES OF STUDENT LIFE: THE WANDERING SCHOLAR. — With the decline of the monastic school in the twelfth and thirteenth centuries, with the renewal of the influence of cathedral and Church school, and with the growth of the universities, student life, now much freer and no longer controlled by monastic rule, began to assume, at least upon the Continent, a peculiar form. This feature, which at first affected only the university student, but soon became characteristic of the more elementary students as well, was the custom of migrating from school to school without remaining long in any one community. The friar organizations had conferred new dignity upon the customs of begging, which for centuries had been considered a virtue in the clergy complementary to the virtue of giving in the laity, and had added new sanction also to the habit of wandering from place to place. The custom of religious pilgrimage and the Crusades had rendered this wandering life far more common and also more secure; so the wandering student added but

one more element to the floating population made up of friars, pilgrims, merchants, craftsmen, knights, and wandering Churchmen.[1]

With the founding of the universities and the establishment of the nations in practically every university, it became quite customary for students to travel from university to university, finding in each a home in their appropriate nation. Many, however, willing to accept the privileges of the clergy and the students without undertaking their obligations, adopted this wandering life as a permanent one. Being a



THE BEGGING STUDENTS OF THE MIDDLE AGES. NUREMBERG, FIFTEENTH CENTURY.

privileged order, they readily found a living, or made it by begging. A monk of the early university period writes: "The scholars are accustomed to wander throughout the whole world and visit all the cities; and their many studies bring them understanding. For in Paris they seek a knowledge of the liberal arts; of the ancient writers at Orleans; of medicine at Salernum; of the black art at Toledo; and in no place decent manners."

[1] See Chaucer's *Canterbury Pilgrims* for contemporary description, and Jusserand's *English Wayfaring Life in the Middle Ages* for modern description; also the author's *Thomas Platter and the Educational Renaissance of the Sixteenth Century*.

Just as the resident students were organized into nations so these wandering students were organized into a guild, under the patronage of a titular *magister* or patron saint, — *Golias*. Hence they were called *goliardi*. The typical goliards, those who had accepted this life as a permanent calling, were riotous, unthrifty, unambitious students, who were hangers-on of the higher clergy or who wandered from palace to palace of ecclesiastical or lay lords. As such they appear in literature, contemporary and modern. They are responsible for a considerable literature of Latin songs similar in many respects to the songs of modern college students.

But soon there appeared a new type of wandering student. As the many masters exceeded the demand for university instruction, wandering masters, seeking to attach themselves to chantry and parochial schools, became numerous; and to these were added the youth — the *scholares vagantes* — who sought to obtain a knowledge of the arts from these schools, and at the same time an easy living. The attractions of the world were added to those of the arts for these wandering scholars, and soon the cities of the Continent, now since the thirteenth century numerous and prosperous, were thronged with such students. In the fourteenth and the fifteenth century — the limits of the period cannot be assigned — the custom received a further extension. These wandering scholars added to their ranks smaller boys, often not over six or seven years of age, — *ABC shooters* they were called, — who accompanied them, ostensibly to acquire the rudiments of knowledge and to join the ranks of the older boys, but in reality to attend them as servants, to beg their food, to sing for money or food, in fact to make their living. Such wandering students became so numerous that they necessitated regulation by municipal ordinance. At Nuremberg, the center of German learning and Renaissance influences during the fifteenth century, a city ordinance required that such

schools should send out only one begging student at a time, that his operations should be restricted to a given parish, and that he should be identified by the picture of the patron saint of the school, carried on the basket in which victuals were to be collected.

NEW TYPES OF SCHOOLS. — The later Middle Ages were well supplied with schools, not all of which were dominated by the Church. For a century before the Reformation it is probable that schools were as numerous and that as wide an opportunity for study existed as for a century afterward. Monastic schools never recovered their importance after the Renaissance of the thirteenth century. Cathedral schools that grew into new prominence in the early university period were insufficient for the demand. Not only secondary but elementary education was provided in the fourteenth and fifteenth centuries in a much more general way than ever before.

An important and probably the most general class of these were the *chantry schools*. Chantry foundations — the gift of property to support a priest in return for prayers for the souls of the benefactor and of his family, or for certain stipulated purposes — were the most common form of benefactions to the Church during the later Middle Ages. Thus it happened that foundations for priests existed beyond all demand for parochial service; as the religious services required by the foundations could occupy but a small portion of time, it became customary to stipulate that such priests should teach the children of the community. As a matter of course, the regulations of these foundations present the greatest variations. Some provide for a small number of children, some for all comers; some provide that instruction shall be gratis, some permit a fee; some indicate that the merest rudiments were taught, others stipulate that instruction shall be given in grammar and the higher branches. In the larger towns,

where chantry and similar foundations were numerous enough to support a body of priests under collegiate organization, and several priests could be designated as teachers, schools sometimes grew up that rivaled in size and in character of work the schools of the cathedral foundations. It no longer occurs that these schools are controlled by monastic teachers, for aside from the mendicant orders, the monks have largely ceased their general educational activities.

Another type of school, yet more free from ecclesiastical control, was the guild school. Very commonly did the merchant and craft guild support priests for the performance of all sorts of religious services for their members. Such priests saw the child of the guild member received into the world with proper religious rites and saw him decently out; he celebrated for him all the sacraments; frequently he kept school. Some guilds established schools of great repute, which have had long histories. The Merchant Taylors' School of London is probably the most notable. Ordinarily the school was but an elementary one, though often it was also a grammar school for the children of the guild members or for others. Such schools would ordinarily give instruction in other subjects than Latin, and frequently before the Renaissance came to give instruction in the vernacular.

With the coalescing of the guild organization and the early municipal government, these schools along with many of the parish schools mentioned above, became in many communities the burgher schools. Such schools were largely controlled and supported by secular authorities, and in the content of their school work better represented the economic interests and demands of the citizens. They were often taught by priests, though lay teachers became more and more numerous. In a similar way private schools, usually of most elementary character, more responsive to new economic and social demands, sprang up. However irregular these private schools were, they yet contributed to the development of

independent town schools. Clerical inspection was yet almost universal, and the Church through the *scholasticus* or some other episcopal officer or even through the parish priest, sought to extend its jurisdiction over both these types of schools.

The tendency toward the establishment of those schools was well marked in the Teutonic countries before the Reformation movement began. In Italy it is doubtful whether the municipal or at least secular private schools had ever ceased to exist. Certain it was that the early universities sprang from such schools where there had been some elementary study of Roman law previous to the foundation of Bologna. During these later mediæval centuries such schools, not of a university grade yet free from ecclesiastical control and governed by secular interests, were quite numerous.

While this entire subject of secular schools previous to the Reformation is a question of controversy concerning the interpretation of historical material, it is evident that the preparation has been made before the Reformation for the secularization of education that was to follow.

THE NEW LITERATURES as well as new types of schools gave expression to the new intellectual interests and social demands, and indicated that neither the thought-life nor the life of material interests could be restrained within the old channels. It is not to be understood that there were no vernacular literatures before these closing centuries of the Middle Ages. In German, Icelandic, and Anglo-Saxon among the Teutonic peoples, and in French, Irish, and Welsh among the Celts, not to mention other minor tongues, there was a literature covering in a general way the entire dark ages from the sixth to the eleventh century. Treating of the heroic deeds of their leaders, of the wonderful prowess and the petty intrigues of their pagan deities, of Biblical story or of the traditions of their race, such literature as that of the

Anglo-Saxon and the old High German is for the most part either a preservation of the old Teutonic culture, now being committed to written record, that represents the continuation of the old in the face of the conquering and hostile Latin culture; or, less frequently, it represents the Latin culture of the Christian Church put into vernacular form.

With the twelfth century, fostered by chivalry and by the Crusade movement with its accompanying motives, there was developed in court and palace, by bard and minstrel, a wholly new literature that finds no parallel and no opportunity for expression in the dominant Latin and ecclesiastical culture. This literature, technically called the Middle English, the Middle German, etc., was an outgrowth similar to that of the troubadours of southern and the trouvères of northern France. In amorous tale, knightly adventure, daring just or brilliant tournament, expressing alike the interest of the court and the laity's dislike and suspicion of motive and conduct of monk and priest, this literature is the beginning of modern literature in its expression of new interests and use of new forms, and at the same time a force making for the overthrow of the dominance of authority and a channel for the expression of heretical views.

One other type of literature that represents a protest against the dominant absolutism and bespeaks the coming individualism of the opening of the modern period in the fifteenth-century Renaissance was that created by the wandering scholars. As would be natural to those following the profession of scholarship, these wandering protestants against the fixed hierarchical despotism of established society used the Latin language; but in this they voiced their disgust for the hollow and hypocritical character of the established formalism, and expressed their frank enjoyment of natural interests and of forbidden pleasures and even of gross indulgence. Here, for the first time, is a clear and conscious return to the motives of the classical poets, and the themes and

attitude of Horace and Ovid are now repeated in a Latin poetry very different in form from the old.

Both of these new types of literature are subjects, large in themselves, which thus relate to the new intellectual life of the people of the later Middle Ages. It is from the new vernacular literature that there is to develop the great influence, soon no longer connected with the class of chivalric nobility alone. In this respect a connection is made between the old chivalric education and the new education of the Renaissance period. But as yet, however much it may influence the general intellectual life, it has no influence upon school life and upon education in the narrower sense.

In a peculiar and intimate manner one of these works of the new literature, now of the fourteenth century, expresses this connection between the Middle Ages and modern times, and hence may be taken as the concrete connecting link between the two. This is

THE BANQUET OF DANTE (1263–1321). — It is not with Dante as the chief exponent of the spirit life of man, in which he is as modern as mediæval, that we are here concerned; but with Dante as an exponent of mediæval thought. In an attempt to explain his own writings and to sum up the learning of the times, Dante gives in *The Banquet* (*Il Convito*) a characteristic exposition of the ideas, the intellectual life, and the meaning of education in the Middle Ages. Written probably about 1310, this treatise contains elements that are strikingly modern and others that are typically mediæval. While in a way it aimed to be one of the encyclopedias of knowledge so characteristic of the Middle Ages, it did not seek to give a summary of facts and events, — the mere externalities of knowledge, — but sought rather to penetrate into the meaning of all this and to give an exposition of its spiritual significance. This desire to penetrate into the inner life, this interest in the subjective, this conception of philos-

ophy and of learning as a means of personal development of culture, which is here approached though not fully set forth, is modern. Another element that is modern is the fact that a large portion of the work (Bk. I, Chs. V–VIII) is devoted to the justification of the use of the vernacular in this and in other of his works. As each one of the main reasons is amplified into a number of points in the most minute analytical manner, the form of the argument becomes a most striking example of the dominant Aristotelianism, although its spirit is a protest against it. The unbounded reverence paid to Aristotle, who is constantly referred to throughout the treatise as "the master," "the philosopher," or simply "he," the one who for Dante was preëminently the "master of those who know," together with this method of scholastic analysis borrowed from the master and the methods of fourfold interpretation (Bk. II, Ch. 1), — the literal, the allegorical, the mystical, and the anagogical or moral, — all these are aspects of the mediævalism of the great poet. In this respect *The Banquet* becomes a most striking exponent of the intellectual life of the Middle Ages.

In Dante's greatest work, the *Divine Comedy*, this fourfold interpretation is most readily seen. In a literal sense the *Commedia* is a presentation of the rewards and punishments, the destiny of man in the hereafter; allegorically, it is a presentation of the virtues and vices of the human soul as illustrated in concrete examples and in the details of the plan; morally, it has as its social, political, and ethical purposes, the making of worthier citizens, better neighbors, nobler men; mystically, it typifies the struggle of the human soul to become free, its growth through sin to holiness, its progress from the finite to the divine. In a similar way *The Banquet* is a fourfold interpretation of some stanzas, written in earlier life of Beatrice,— now identified with philosophy, — in which exposition the entire scheme of the thought-life and incidentally of the education of the Middle Ages is set forth.

The conception of the universe here presented (*The Banquet*, Bk. II, Chs. III–VI) gives the cosmology, the theology, the psychology, the educational theory, of the Middle Ages.

For the unintelligent the world was a flat disk, around which flowed the stream Oceanus, and over which was placed a crystal vault, in which were fixed, as in a ceiling, the sun, moon, and stars. Beyond this vault lived the gods and spirits, and thus the entire universe was composed. But in the minds of the intelligent there prevailed a system founded primarily on the idea of the Greek philosophers, and called the Ptolemaic (see p. 170). This universe as made entirely for man is thus described by Dante. With the earth as a center the heavens consist of nine huge spheres fitting one into the other, which turn one upon the other. To the first seven of these spheres are fixed in succession the moon, Mercury, Venus, the sun, Mars, Jupiter, and Saturn. As the spheres move in one direction the "planets" move slowly in the opposite. Beyond the seventh heaven is that of the fixed stars; the ninth is the "crystalline heavens," or the *Primum Mobile*, moving with greatest rapidity and imparting its movements to all the rest. The tenth heaven is the *Empyreum*, or "luminous heaven," which alone, as the abode of eternal rest, is without movement.

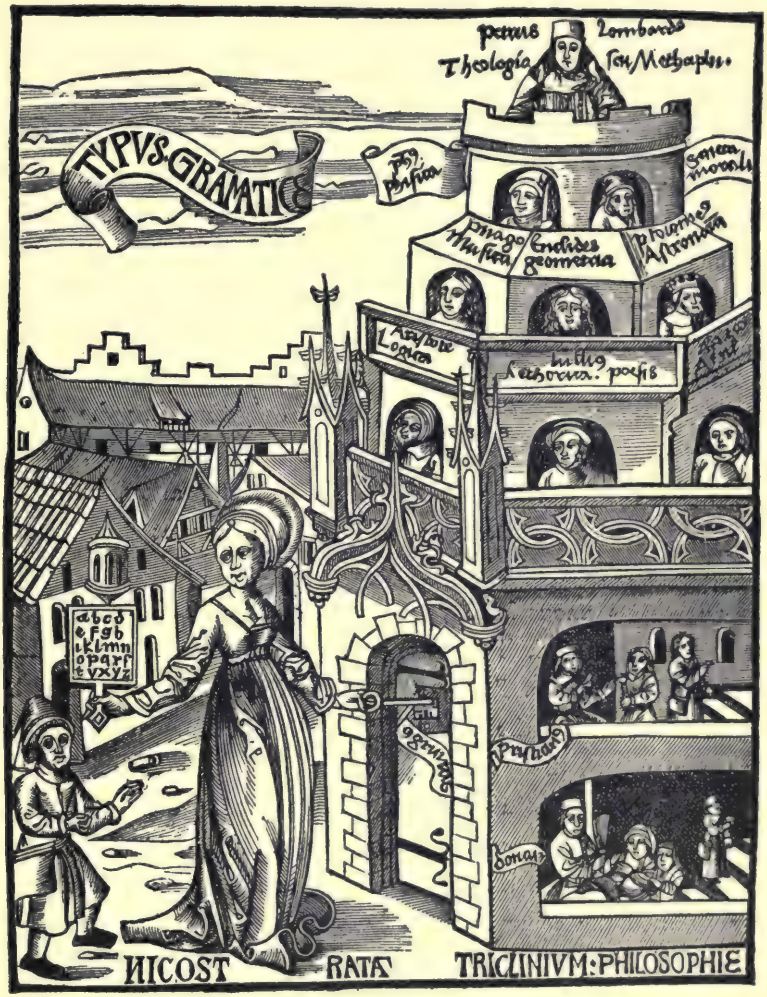
"And this is the reason that the *Primum Mobile* moves with immense velocity: because the fervent longing of all its parts to be united to those of this tenth and most divine and quiet heaven, makes it revolve with so much desire that its velocity is almost incomprehensible. And this quiet and peaceful heaven is the abode of that Supreme Deity who alone doth perfectly behold Himself. This is the abode of the beatified spirits, according to the holy church, who cannot lie, and Aristotle also seems to think so, if rightly understood, in the first of *The Heavens and Earth*. This is the supreme edifice of the universe, in which all the world is included, and beyond which is nothing; and it is not in space, but was

formerly solely in the Primal Mind, which the Greeks call *Protonœ*. This is that magnificence of which the Psalmist spake, when he says to God, 'Thy magnificence is exalted above the Heavens.'"

This entire explanation of Dante's (Bk. II, Ch. IV), in its dependence upon authority, in its attempt to harmonize Greek philosopher and Hebrew psalmist, in its allegorical interpretation of texts, in its arrangement of argument, is typically mediæval.

The hierarchy of heavenly spheres is paralleled by these successive hierarchies of spirits which preside over them. "The motive powers of the Heaven of the Moon are of the order of Angels; and those of Mercury of Archangels; and those of Venus are the Thrones, which informed of the love of the Holy Spirit, perform their work, that is the movement of this heaven filled with love, according to the nature of that love." Vergil, Ovid, mediæval astrology, and the Bible are unified in this interpretation. Then follow, corresponding to the appropriate spheres, dominions, virtues, principalities, powers, Cherubim, and Seraphim; finally the trilogy is completed with the dominance of the Trinity over the Empyreum. Thus again are the angels and spirits of the Bible, the *ideas* of Plato, the *word* of St. John, the gods of classic mythology, the mysticism and demonology of the Middle Ages unified and interpreted. Thus are explained the stages of development of the human soul; thus, in the impartation of movement from the crystalline to the other heavens, and the longing "of every particle of the crystalline heaven to be united with every particle of the most divine tranquil heaven," the pervading love and unifying tendency, the uplifting influence of the love of God.

But this unity and this interpretation includes not the spiritual and moral life alone; it dominates the intellectual, which is incorporated in the same general explanation. It is impossible in a restricted space to enter into all the intricacies



THE MEDIÆVAL CURRICULUM ALLEGORICALLY REPRESENTED AS THE TEMPLE OF WISDOM.

of the reasons why, as he states, "he says heaven when he means science, and heavens when he means sciences." "To

the first seven correspond the seven sciences of the *Trivium* and the *Quadrivium*, that is, to Grammar, Dialectic, Rhetoric, Arithmetic, Music, Geometry, and Astrology. To the eighth sphere, that is, to the starry Heavens, correspond Natural Science, called *Physics*, and the first of sciences called *Metaphysics;* to the ninth sphere corresponds Moral Science; and to the Quiet Heaven corresponds Divine Science, which is called Theology." Hence throughout the treatise wherever he uses the term heavens or any particular heaven, he is referring to the appropriate science, and describing in an allegorical way its characteristics and influences.

The heaven of Venus is compared with rhetoric, because it is the most charming of all the sciences, as Venus is the brightest of the planets; and because as Venus is now a morning, now an evening star, so rhetoric now as oratory appears before the face of the speaker, now as literature, speaks from a distance. The sun is compared with arithmetic, because it illumines all the other sciences, and because, as the eye cannot look upon the sun, so "the eye of the intellect cannot look upon it; because Number, considered in itself, is infinite, and that we cannot comprehend."

Though but three of the proposed fourteen books, or courses at this intellectual banquet, were completed, and hence, though a most complete and authoritative summary of the learning of the Middle Ages by its greatest genius is denied us, yet in the fragment written the spirit of the intellectual life of the Middle Ages, the spirit that partakes both of scholasticism and mysticism, finds one of its clearest expressions. It illustrates perfectly this judgment of Federn: "There never was a time when so little, and at the same time so much, was known as in the Middle Ages, for people really knew everything; they had a ready explanation for every phenomenon; very clever explanations they often were, but always untested; whatever was or seemed possible, whatever could be made plausible in words, was immediately

accepted; people did not like to doubt, and even the impossible could be dealt with and accepted as a miracle."

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TOPICS FOR FURTHER INVESTIGATION

1. Compare the basis of the disciplinary conception of education in the Middle Ages with the basis of the modern conception of education as formal discipline.

2. What relation can you discover between the conception of the depravity of human nature held throughout the Middle Ages and the attitude toward interest in education?

3. What provisions for literary and intellectual education can you discover in the rules of the various monastic orders?

4. Work out the history of the educational influence of any one particular monastery, *e.g.* St. Gall, Fulda, Reichnau, Monte Cassino, etc.

5. Work out the educational influence of any one monastic order, especially of the mendicant orders in any one country; *e.g.* the Franciscans or Dominicans in England.

6. To what extent could the duty of copying manuscripts furnish education to the monks?

7. Trace the development of the conception of the Seven Liberal Arts.

8. What was the content of the Seven Liberal Arts as presented by any one writer? *E.g.*, Alcuin, Rabanus Maurus, etc.

9. What similarity exists between the symbolism in education in mediæval ages and that of modern times?

10. What connection do you find between the chivalric education and the conception of education of modern times, later discussed under the head of social realism?

11. What connection between these two and that modern view which holds that the chief function of college education is to produce the character of a "gentleman of leisure and of culture"?

12. Work out in detail the education of a page or of a squire.

13. What educational value can you discover in the study of dialectic as pursued by the Schoolmen?

14. Which of the two methods of scholastic study possessed the greater educational value? Why? Which possessed the greater social value? Why?

15. Compare a day in the life of a university student in a mediæval university with one in the life of a modern university student, with an attempt to discover the educational value of the activities of each.

16. Select some of the questions debated by the Schoolmen, and indicate the educational value to be derived from their study.

17. Study in detail the life of any one of the great Schoolmen, and from his teachings and writings indicate its educational significance.

18. Work out in detail the nature of the nations, the development of the faculty, the course of study of any one mediæval university.

19. Describe the influence of the friars on the life of any one mediæval university.

20. Describe in greater detail the influence of Aristotle on the mediæval university.

21. Trace the influence of the Saracens on any one subject of study during the later Middle Ages. (See the general historical material relating to the early histories of universities.)

22. Describe the life of the wandering scholar as given in the autobiography of Thomas Platter or of Johannes Butzbach.

23. Describe the beginnings of the secular schools of any one country during these later mediæval centuries.

Chronological Table of Educational Development from the Fourteenth to the Seventeenth Century

Political Events and Personages	Literary Men and Scientists	Religious Events and Personages	Educators and Educational Writings	Educational Events
1300. 1339–1453. One Hund. Yrs.' War. Edward III of Eng. 1327–1377. 1347. Rienzi. 1347–9 Black Death 1356 Poitiers. 1356. The Seven Electors established by charter. 1350 1500. Hansa League.	Marco Polo 1234–1324 Dante . 1265–1321 Petrarch 1304–1374 Boccaccio 1313–1375 Chaucer 1328 1400	1302. Philip of France triumphs over Boniface. 1312. Suppression of Templars. John Tauler 1290–1361 Wycliffe 1324–1384 1309–1377. Babylonian Captivity. 1387–1417. The Great Schism. 1384. Breth. Com. Life f.	William of Occam 1270–1347 Jean Gerson 1363–1429 Paulus Vergerius 1349–1420	1343. U. Pisa f. 1347. U. Prague f. 1349. U. Florence f. 1362. Use of Eng. est. in law courts 1365. U. Vienna f. 1384. School at Daventer founded. 1386. U. Heidelberg f. 1387. Winchester f. 1392. U. Erfurt f. 1397–1400. Chrysoloras teaches Greek at Florence
1400 1431 Joan of Arc burned. 1453 Fall of Constantinople. 1455 1485 War of Roses. 1474–1509. Ferdinand and Isabella of Spain 1494 Charles VIII of France in Italy. 1498–1515. Italian wars of Louis XI. 1462–1505. Ivan the Great.	Lorenzo Valla 1407–1457 Leonardo Bruni 1369–1444 Pico da Mirandola (1463–1494) and the Platonic Academy. Leonardo da Vinci 1452–1519 Raphael 1485–1520	1414. Council of Constance. 1418. Council of Basle. 1415. John Huss burned. Thomas à Kempis 1380–1472 Savonarola 1452–1498	Vittorino da Feltra 1378 1446 Cosimo de Medic 1389–1446 Wessel 1420–1495 Hegius 1420 1495 Battista Guarino 1434 1460 John Reuchlin 1455–1522 Jacob Wimpfeling 1450–1528 1452. Pope Pius II., *De Liberorum Educatione.* Colet 1456 1519 Linacre 1460–1524 Wm. Lilly 1468–1522	1428. Vitterino establishes school at Mantua. 1440. Eton founded. 1455. First book printed. 1458. Greek taught at Paris. 1460 New learning at Heidelberg. 1494 First chair of "Poetry" in N Europe (at Erfurt). 1496. Humanism in city schools of Nuremberg.
1500. 1520. Magellan circumnavigates the globe 1524. Peasants' War Henry VIII 1509–1547 1533. Reb. of Geneva. Edward VI 1547–1553 Elizabeth 1558 1603 1588. Spanish Armada.	Erasmus 1457–1536 Michael Angelo 1475–1564 Ariosto 1474–1533 Copernicus 1473–1543 Tycho-Brahé 1546 1601 Shakespeare 1564 1616 Kepler 1571–1630	Luther . 1483–1546 1517. Luther's Theses. 1521. Diet at Worms. 1535. Suppression of monasteries in England. 1540. Jesuit Order founded. 1538. English Act of Supremacy. 1545–1563. Council of Trent. Zwingli 1484–1531 Knox . 1505 1572 Calvin . 1509–1564 1542. Inquisition introduced. 1553. Servetus burned. 1555. Peace of Augsburg. 1572. St. Bartholomew's massacre 1598. Edict of Nantes.	Erasmus 1467–1536 Thomas More 1478–1535 Rabelais 1483–1553 Melanchthon 1497 1560 Trotzendorf 1490–1556 Vives . 1492–1540 Sturm 1507–1589 Ascham 1515–1568 Montaigne 1533–1592 Peter Ramus 1515–1572 Michael Neander 1525–1595 1571. Ascham's *Schoolmaster.* 1531. Elyot's *Governour*, first work in Eng. on education. Mulcaster 1531–1611 Mulcaster's *Positions* 1581	1502. University of Wittemberg founded 1510–1513. Erasmus teaches Greek at Cambridge. 1510. St. Paul's f. 1519. Erfurt and Leipzig reorganized on humanistic basis. 1524. First Protestant City Schools. 1524. Luther's Address to German Cities 1526. Melanchthon opens gymnasium at Nuremberg. 1528. Saxony School Plan. 1537. Sturm's School founded. 1540. Jesuit order f 1559. Würtemberg School Plan; first sys. of Pub. Sch 1599. Final form of Jesuit *Ratio Studiorum.*

CHAPTER VI

THE RENAISSANCE AND HUMANISTIC EDUCATION

What the Renaissance Was.—The Renaissance of the fifteenth and sixteenth centuries brought radical changes in educational practice similar to those in the intellectual life. The view of education which found no worthy aims or interest in this life except as they were connected as a preparation directly with the life to come, which looked upon schooling as a discipline merely introductory to this greater discipline of life, which limited instruction to the training of the mind in a few activities and those not the highest, gave way during the fifteenth and sixteenth centuries to a conception of education entirely different. This new view contained the germs of all modern educational development. As the appropriate subject-matter of education, the new education opposed to the old a radically different interpretation of Greek philosophy. It rejected the metaphysics of Aristotle in favor of his physics; it exalted Plato above Aristotle and found a place for the literature of the Romans and of the Greeks as expressive of the best that is in man, in humanity, and in nature. In its method the new absolutely rejected that attitude of mind characteristic of the old, which drew authoritative deductions and hence all knowledge from conceptions which, though they might be established by ecclesiastical authority or scholastic traditions, were mere assumptions. In its form the new education declined to express itself in or be bound by the stiff, formal, and even crude Latin of the Church and of the school, but aspired to

the freedom, the expressiveness, and the beauty of classical literature.

The new conception of education resulted from a profound social change, the causes of which were numerous and far-reaching. The logically perfect systems of education which dominated the Middle Ages, whether for the monk, the cleric, or the secular leader, were unstable because of their very perfection. In their completeness they permitted no change, no progress; they made no provision for the individual. While the monastic life furnished a moral discipline, it provided for no progressive application in life of power when developed, since the monk was separated from the world; hence the tendency to fall away from higher ideals and the inability of such standards to meet developing needs. The perfected system of chivalry gave no place to the common man that could be tolerated for long, nor did it offer possibility of attainment to nor require obligations from the higher classes that could be satisfactory even for a time. Scholasticism had constructed an elaborate and perfected system of thought which fettered the intellect, though from its subject-matter such glimpses of freedom were gained as together with the power gained from the intellectual activity were soon to prove instrumental in bringing about its overthrow. These structures of thought, erected with so much labor as palaces in which to dwell, proved to be but prisons; and as the architects completed the edifice, those for whom they were designed overthrew what they saw to be symbols of their slavery. Yet from the débris of these edifices the succeeding generation laid the foundations of the structure of modern thought. The completion of the Crusade movement in the fourteenth century saw the destruction of the contentment of the people under the rigid system of scholastic thought and the perfected control of ecclesiastical organization; the universities stimulated the zeal for the intellectual life; the growing cities, with their industries and their commerce, furnished

the opportunity for the development of those economic interests which are fundamental in modern life and for the accumulation of that wealth and power which was to reproduce, at least in north Italy, the city states of the classic type of Greece; the invention of gunpowder made it possible for the common man to challenge the power of any authority dependent on physical prowess; while the printing press opened up the treasures of Greek and Roman thought and achievement to every one seeking light and truth.

Thus the unity of mediæval thought, as the historical development of the time reveals to have been the case with the similar unity of life, ultimately broke up into the multiple interests and activities characteristic of modern times. Thought lost its unified or corporate character. Education ceased to find its aim in such an adjustment of the individual into a perfected scheme of thought and action that he lost his individuality and found expression only through the institutionalized whole. In place of this there developed in the greatest variety of forms that individualism which is so characteristic of the early Renaissance, and which renders it difficult to express either the intellectual traits or the educational practices of that period in terms other than those of personal characteristics. The extreme individualism remained typical only of the earlier period and soon crystallized itself socially into movements, and educationally into types of schools.

Though the activities of the Renaissance were most varied, they may be summed up in three general tendencies, representing three great interests almost unknown during the Middle Ages, and opening up to the student three worlds or aspects of life that had for many centuries remained almost unknown. The first of these new worlds was the real life of the past, — the life of the ancient Greeks and Romans who had possessed infinitely more varied interests, and consequently a wider knowledge of life and of its possibilities than had the people of the Middle Ages. The classic ages had expressed

this interest by means of a literature and an art incomparably superior to any produced during the intervening centuries, — centuries which had been not so much ignorant of as indifferent to them. The second of these worlds was the subjective one, the world of emotions, — of the joy of living, of the contemplative pleasures and satisfactions of this life, of the appreciation of the beautiful: an interest in introspective observation and analysis, from the æsthetic and human rather than from the philosophical and religious point of view. The means to such a world as this is through the fullest participation in activities and interests of the life around one; the purpose of such a study is self-culture and improvement; the result of it is literature and art. Of this world mediæval thought had been wholly ignorant. The third of these worlds was that of nature around them, a realm not only unknown to the people of the mediæval centuries, but considered ignoble and debasing in its influence on man.

The first of these great world discoveries led to a wider and more intensive study of the Latin and Greek languages; to a devotion to the classic literature of both languages; to a search for the manuscript remains of this literature until this quest had brought to light substantially all that we possess to-day; to a passion for the collection of these manuscripts, consequently to their multiplication, and finally through the discovery of printing to their general dissemination. The mistake should not be made, however, of confusing the means of this Renaissance with its cause or with its end. The recovery of the classical literature was not the cause, for that, as we have noticed, lies far deeper and more remote in the whole movement of history and of thought. Nor was it the purpose of the Renaissance, even in the case of the few notable leaders such as Petrarch, who were possessed by a consuming passion for the recovery of the works of the ancients. These books were merely means to that culture, that advancement in knowledge and breadth of view and

of experience which made these men the earlier leaders of this movement.

In this recovered literature the three new tendencies of thought previously mentioned find their basis and through it they first work themselves out. These tendencies lie at the foundation of the various conceptions of education prevalent during the following centuries. Opposed to the formal Aristotelianism of scholasticism there arose first a Platonism, or rather a Neoplatonism, that was wholly contradictory to every aspect of accepted thought and that expressed itself most thoroughly in the earlier stages of the Renaissance. Starting from the ultra-Platonic development of the last stages of Greek thought, it revealed itself in an extreme individualism which furnished the philosophical basis of the ideal of self-culture and self-development, in the efforts toward a purely self-centered education, and in the idea of human or collective immortality, or that aspiration to "live in minds made better by their presence" as a substitute for the heaven of the monastic rules. According to this view of life, all knowledge of the world, yes, even all knowledge of God, was locked up in man's knowledge of himself and was to be revealed through contemplation, introspection, self-analysis, just as the heaven it contemplated was one of its own creation. A second literary revival was that of a purer Aristotle, one shorn of much of the Oriental gloss of the Arabic commentators and one revealed rather in his physics than in the fragment of his metaphysics possessed by the Schoolmen. Through this Aristotle there was a working back to the point of view of the earlier Greek philosophers, concerned as they were in the theory of a natural universe rather than in one of knowledge or of man, and a working forward to that search for the knowledge of reality made by modern science. A third phase of this literary revival centered chiefly around Latin literature, and was opposed to the scholastic literature on account of its inferiority of form. Essentially individual

and concrete, hence æsthetic in its tendencies, the Renaissance temper rejected all dealing with abstract conceptions, and demanded the concrete, the real, that which appealed to the imagination and the heart, even though it was no more than the beauty of literary form alone. While all of these tendencies were apparent from the first, and while no definite schools represent this analysis of thought tendencies, yet the Platonic and individualistic tendency was characteristic of the fourteenth and early fifteenth centuries; the inductive Aristotelian and scientific aspect did not become dominant until the seventeenth; while the Ciceronian literary phase was virtually in control during all the intervening period.

We have spoken of all of this as a result of the discovery of the first of the Renaissance worlds — that of the ancients. In reality, what has been mentioned as the outcome of the revival of the scientific works of Aristotle and of the early Greek philosophers, while it was but one aspect of the world of ancient thought, led to this discovery of the world of nature. Through the beliefs and methods of the Greeks, the Renaissance students were led to direct observation and experimentation with natural phenomena, and through that to geographical discovery and exploration both by land and sea, and to those astronomical discoveries that were to become the basis of modern scientific thought. Thus this aspect of Renaissance thought led in time to a modification of all aspects of thought, and connects directly with the work of Bacon and Descartes in the seventeenth century and with the physical and biological investigations of modern science. The combination of the first and second of these great world discoveries, the world portrayed in classical literature and the world revealed by introspective analysis of the emotional life, led to the production of art and literature, including poetry, the drama, and romance, to an interest in new motives as revealed in history and in contemporary life, and consequently to the formulation of the historical and social sci-

ences. While at first this development seems to be through the exclusion of the previously absorbing religious interest, yet during the sixteenth century it again becomes dominantly religious, but now on a humanistic rather than on a scholastic basis.

While all of these changes influenced educational ideals and practices and are operative in the formation of all modern conceptions of education, a full presentation of their meaning belongs rather to the history of the human intellect and of human society than to the narrower field of the history of education. Nevertheless, a brief historical sketch of the progress of the Renaissance is desirable as a basis for the discussion of the strictly educational bearing of the revival, since no great historical movement has ever been so thoroughly educational in its character.

The transition from the old learning to the new was not an abrupt one; the clear definition of the new spirit came about very gradually. Even its triumph did not involve the disappearance of the old spirit. Both in educational interests and in those wider ones involving the human intellect and the human spirit, old methods of thought as well as old ideas and ideals continued active for many centuries; in fact, they have persisted even to the present day. But the dominant thought, that which gives character to the period, soon came to be that aroused by the new knowledge.

THE RENAISSANCE IN ITALY. — As the political, religious, and intellectual life of the times centered in Italy, so also did the Renaissance movement. The period was the latter half of the fourteenth and all of the fifteenth century. The causes of this movement, as discoverable in the influence of the universities and the intensity of the intellectual activity of the thirteenth century, have been mentioned previously. The personal connecting link is found in Dante (1264–1321), whose partly mediæval, partly modern, spirit has already

been noticed. But the man who earned the title of "the first modern man" was Petrarch (1304–1374). He it was who first broke completely with the mediæval, who devoted himself to the study of the classics and to a reproduction of the classical spirit in literature, both in the vernacular and in classical Latin, with such a passion as soon to carry with him a great following of the leading minds of Italy. Petrarch was the first to choose Cicero as a master. He looked upon Cicero and his compeers as living personages. Much of Petrarch's epistolary work, the earliest embodiment of the new spirit, was imaginary correspondence with these ancient authors. So vitally did he seek to enter into their spirit that reciprocally their spirit in time became that of the Renaissance. Petrarch himself said that he stood between two ages, being the first to look back to the age of Augustine and realize all that had been lost, and the first to point out the way for its recovery.

During the later mediæval centuries a knowledge of the Latin classics was not an unknown thing, for the manuscript copies of many of these were in existence, and Vergil at least was quite well known. But there was little appreciation for their beauty as literature, little sympathy with the interests of the classical times, and little toleration of the study of these classics to the detriment of the study of dialectic based upon Aristotle, the study of the *Sentences* of Peter the Lombard, and of the patristic and scholastic literature in general. Against the dominant educational ideas of the times, against scholasticism and Aristotelianism, Petrarch strove with all his might. With his genius for leadership and his power of stimulating enthusiasm, he created a general interest in the classics in direct opposition to the ordinarily accepted interests of students, of institutions of learning, of the Church and of Churchmen. Petrarch was not alone in this; his significance here is merely as a representative of a movement. But he holds a place in the history

of education as the first great representative of a new type of intellectual life. To-day, when we can readily obtain a knowledge of the best that has been thought and done without going back to antiquity, it is difficult to realize the importance of this work. At that time there was no vernacular literature to speak of, and the human interests of the Greek and Latin literatures had been replaced by the narrow religious and ecclesiastical interests of the Middle Ages. Consequently there is no parallel between the importance of the study of Latin and Greek in recent centuries and its importance during these centuries of the Renaissance period.

The Work of Petrarch and his confrères possessed, not only this negative value of protest against the restrictive mediævalism, the perfectly adjusted world of thought and action, but it possessed also the positive merit of emphasizing the value of the opportunities of this life for self-development through the greatest variety of experiences and efforts wholly forbidden by the asceticism and self-abnegation of the mediæval spirit. His writings are the first in modern times to reveal the human soul in the whole gamut of passions, sufferings, and aspirations. Here is first found that attitude of self-analysis that becomes a characteristic note in modern literature and thought.

As a reaction against the all-controlling, "other worldliness" of the Middle Ages, one aspect of this new motive was the substitution of the idea of a worldly immortality which later gave rise to that recrudescence of paganism characteristic of the Italian Renaissance. In the narrower sense none of Petrarch's writings are educational. The more important of them are his *Sonnets* in the vernacular, characterized by their introspective emotionalism, which give them an important place in the history of modern literature; his *Lives of Ancient Men*, wherein both the Greeks and Romans become alive to modern men; and his very numerous *Letters*, wherein are revealed the development and the dissemination of the

Renaissance spirit. It is not the content of these works that gives him a place in the history of education, but this new conception of life and the new spirit and content of education. This second great characteristic of Petrarch also has more than individual significance. As in its beginning, so throughout its course, the Renaissance in Italy remained dominantly personal and individual. Its spirit was that of the development and culture of the individual, and had little or no interest in the improvement of society in general. It did not seek to reform the morals of the time or to remove the formalism of the religious life or the narrowness of the political and institutional life.

Petrarch was an indefatigable student, and possessed the power as a scholar of stimulating others. Though he had many co-laborers and many successors, to him is directly due the revival of classical Latin.

Co-laborers of Petrarch. — Among the chief of these were Boccaccio (1313–1375), especially notable in literature, and Barzizza (1370–1431), especially notable for scholarship. These, with Petrarch, led in the movement for the recovery of the classical text, for the multiplication of these manuscripts, and for the founding of libraries. In one remaining aspect of the educational Renaissance — the recovery of the Greek language — Petrarch had little part. In the Hebrew the Italians had no interest, but to them was due the restoration of the Greek. Even among the Byzantine Greeks of the East a knowledge of the classical Greek was a rare thing; and while many travelers and some students had come in contact with the contemporary Greeks and a few of the Byzantians professed to teach Greek in Italy, the first real teacher of the classical Greek in the Western world for many centuries was Manuel Chrysoloras (d. 1415). From 1397 to 1400 Chrysoloras lectured at the University of Florence and later at other cities of Italy. Many flocked to his tuition; other Greek teachers followed his example; Greek manu

scripts were brought over in great numbers; Greek grammars were written for Latin students; and shortly there was given to the Western world a new language and a whole literature, of infinitely greater wealth than that possessed, whether of classical Latin, of patristic and mediæval Latin, or of the vernacular.

By the time the Renaissance movement had reached its zenith in Italy and had begun to pass north of the Alps, the classical Latin and Greek languages had been recovered; the largest part of the literature of these languages that we now possess had been brought to light, libraries had been founded, and the new spirit as well as the new knowledge had been firmly established.

MODIFIED CHARACTER OF THE RENAISSANCE IN NORTH EUROPE. — The later Renaissance period, that of the latter half of the fifteenth century and the greater part of the sixteenth, was modified in two respects. By this time the movement had run its course in Italy and had begun to decline into a formalism little superior to the old; while, in the second place, the movement shifted north of the Alps and, though first welcomed by the French, received its greatest development among the Teutonic peoples. In the South the new learning tended to lose its wide interest in nature and in life, as well as the intensity of its belief in personal development, and to concentrate in the mere formal study of literature, until, on the educational side, it degenerated into that type later to be mentioned as "Ciceronianism." With the transfer to the North the change in spirit was even more significant; in one respect it was a narrowing, in another it was a broadening tendency. The early movement in the South was a most pronounced emphasis on individualism. The new learning was esteemed chiefly as a means of self-culture; through it individual opinion was to find freedom, individual appreciation to find means of expression, individual judgment to find scope

for exercise. The Italian Renaissance concentrated itself in the recovery of the literature of Greece and Rome as a means to these ends, since personality had never been so exalted as during the periods when these literatures were produced, or at least had nowhere else found such adequate expression. This the Northern nations did not get; among them the æsthetic element of the movement even as regards literature was comparatively undeveloped. There was not the broad interest in life, in its possibilities and in its opportunities for personal development; in its pleasures and its legitimate interests aside from the practical, that is, religious and social ones; little or none of that interest in the investigation of nature and of life in the past that so characterized the earlier period. Erasmus, who represents the later movement, as Petrarch did the earlier, had none of these. Since the archæological, æsthetic, philosophical interest of the early movement were for the most part expressions of self-culture, as well as means of personal development, there was comparatively slight attention to them.

While in the North the movement was a narrower one so far as it relates to personal development, it was infinitely broader in another respect, — in that it resulted in social reform and improvement. In the South the movement was aristocratic; in the North, until late in the sixteenth century, it was democratic. All of the early leaders were social or religious reformers, and with them the Renaissance movement fused with the Reformation movement. With Erasmus the interests that determined his career in life, the side of every controversy that he chose, and the selection of classics to be edited or translated were all determined by one aim. This was to remove the common ignorance, to root out the gross evils of Church and State, to condemn the selfishness, greed, and hypocrisy of all who used the cloak of their office, whether in government, in university, in monastery, or in Church, to prey upon the ignorance and superstition of those committed to their care.

As another example of this Teutonic tendency, take Jacob Wimpfeling, the great humanistic educator of Roman Catholic Germany. He asks, "Of what use are all the books in the world, the most learned writings, the most profound research, if they only minister to the vainglory of their authors, and do not, or cannot, advance the good of mankind? Such barren, useless, injurious learning as proceeds from pride and egotism serves to darken understanding and to foster all evil passions and inclinations; and if these govern the mind of an author, his works cannot possibly be good in their influence." All of Wimpheling's work was founded on the basal principle that "the better education of the young is the foundation of all true reform, ecclesiastical, national, and domestic." Thus it was with most of the humanists of North Europe. All such evils were based upon ignorance; hence the Renaissance in the North became more emphatically educational from this general social point of view, yet narrower so far as concerned the elements entering into the ideal of personal character. The broader interests of the earlier period had led to a freedom of opinion and to a license in action that was quite foreign to the character and piety of the German people. In the north action led to an emphasis on the moral and religious bearing of the new learning, and to a fusion with the Reformation cause. Whether necessary or not, the outcome certainly was a restriction of the educational ideal in scope, and a limiting of the function of individual judgment and of the right of personal development to religious rather than intellectual lines, and to the elimination for the vast majority of people of important elements of this ideal as formulated in the earlier period. This cannot be said to be true of all of the leaders — of Erasmus, for example; but Erasmus was fighting all his life, not only against the abuses in Church and State based on ignorance and selfishness, but also against this narrowing tendency of the new learning, in literature, in education, in religion, in interest in nature. and in the bearing of learning on the broad,

practical aspects of life. The intellectual spirit, which was the essential feature of the Renaissance, prevailed largely during the first century of the movement in the North. But after the time of Erasmus most of this spirit of criticism of authority, of toleration of personal opinion, of investigation and research into the ideas of the ancients and into the rationality of beliefs and practices, of interest in the processes of nature,— all gave place to an intellectual formalism scarcely more tolerant than the mediæval. By the time this formalism fully established itself, the Renaissance period as usually delimited was passed. But so far as schools were concerned, the old scholastic spirit had scarcely given way to the new before that was replaced by the new formalism, hardly more tolerant than the old. The great difference was that educational formalism was now founded on literary and linguistic instead of upon logical and dialectic studies.

THE EDUCATIONAL MEANING OF THE RENAISSANCE

(*a*) The Revival of the Idea of the Liberal Education. — The devotion to the study of the classical literatures became not only the chief outward manifestation of the Renaissance spirit, but these literatures also furnished the chief means in developing the new life. The new aspirations for the development of free moral personality, defined on both the intellectual and the emotional sides as well, found little basis in the immediate past and little encouragement in the immediate present; but the life of the ancients as portrayed in their literature furnished both. The Renaissance was not a direct attempt to reëstablish the ideas and the life of the ancients, but in many respects it became an imitation, because the formulation of certain aspects of life by the ancients could not be improved upon, and some could not well be modified to conform to the needs of the fourteenth and fifteenth centuries by those of so meager experience and outlook as had the men of that time. A most important

phase of this revival was the restoration of the idea of the liberal education as formulated by the Greeks and adapted to the Romans by Cicero, Quintilian, Tacitus, and others. Educationally, the Renaissance often seems to have been merely a devotion to the study of the literary classics and to the linguistic study necessary as a preparation; but this is not the heart of the matter, at least during the earlier period. The great desire was for a new life and, in this respect, for a new education, hostile to the old, dogmatic, restrictive, pedantic scheme of scholasticism. This ideal revealed itself in the liberal education as formulated by the ancients, though its immediate application was an individualistic one rather than one giving its social implications.

Both the earlier and the later Renaissance periods were quite prolific in treatises on education; those of the earlier period, not only revive the liberal idea, but even define education in the same terms as those used by Plato, by Aristotle, or by Quintilian. The aim of education is always conceived as that of producing the perfect man fitted for participation in the activities of the dominant social institutions. The ideal, while individualistic, is as clearly distinguished from the narrow practical aim of individual success as a citizen, and from the other extreme of a life of isolation spent in mere contemplation of the good as it is from the prevailing formal disciplinary education of the scholastics. The educated men of the past who were held up as ideals were Demosthenes, Aristotle, Cæsar, Pliny, and above all Cicero.

Formulation of the Aim. — Some of the formulations of the purpose of education by these early educators are of great interest and value. Paulus Vergerius (1349–1420), a professor in the University of Padua, wrote a treatise on education about 1374 which was widely influential and even widely used as a text in schools, in which he formulated the conception of education as follows: "We call those studies liberal which are worthy of a free man; those studies by which we

attain and practice virtue and wisdom; that education which calls forth, trains, and develops those highest gifts of body and of mind, which ennoble men and which are rightly judged to rank next in dignity to virtue only." To distinguish it from a purely practical education, which, owing to the revived economic interests of the times, was competing with the liberal idea in the struggle with the dominant scholasticism, he adds: "For to the vulgar temper, gain and pleasure are the one aim of existence; to a lofty nature, moral worth and fame." The major part of all of these numerous treatises on education is naturally devoted to a discussion of the subject-matter and the method of education, since the aim or purpose can usually be indicated in a word or two from Plato or Cicero, while it is in respect to content and method that the new education presented a visible contrast with the old. It has been noticed, previously, that while Plato defined the aim of education in terms of knowledge and Cicero in terms of eloquence, meaning knowledge of content and of form of literature, much more was indicated by these terms than is now connoted. Both terms which now would indicate for the most part the receptive or even formal side of education then included the expression side as well. During the early Renaissance period this expression side was even wider than that indicated by efficiency in writing or speaking, since at that time these powers stood for that effective participation in the affairs of the times that is now represented by the differentiated activities of all of our learned professions and by the public press. This is the meaning contained in the following paragraph from the essay of Lionardo D'Arezzo on the study of literature, written about 1477 to a noble lady. Even to women, this study of literature is to mean more than mere acquaintance with or knowledge of classical writings.

"That high standard of education to which I referred at the outset" (illustrated by reference to a number of learned

women, who had participated in public affairs, such as Cornelia, Sappho, Aspasia) "is only reached by one who has seen many things and read much. Poet, Orator, Historian, and the rest, all must be studied, each must contribute a share. This learning thus becomes full, ready, varied, and elegant, available for action or for discourse in all subjects. But to enable us to make effectual use of what we know, we must add to our knowledge the power of expression. These two sides of learning, indeed, should not be separated; they afford mutual aid and distinction. Proficiency in literary form, not accompanied by broad acquaintance with facts and truths, is a barren attainment; whilst information, however vast, which lacks all grace of expression, would seem to be put under a bushel or partly thrown away. Indeed, one may fairly ask what advantage it is to possess profound and varied learning if one cannot convey it in language worthy of the subject. Where, however, this double capacity exists, — breadth of learning and grace of style, — we allow the highest title to distinction and to abiding fame."

The same idea clothed in different words, probably more acceptable to present educational thought, is given by Æneas Sylvius, later Pope Pius II, in his tractate on *The Liberal Education*, published 1475, where he sums up the aim of such study in terms of *character*, "our one sure possession." But character is to be obtained through study of philosophy, letters, and by religious nurture. "Eloquence is a prime accomplishment in one immersed in affairs." We must learn to express ourselves with distinction, with style, and in a manner worthy of our subject. Consequently "Grammar, it is allowed, is the portal to all knowledge whatever," and therewith he outlines the usual literary education of the Renaissance leaders.

The New Elements in Education. — One very important aspect of the Renaissance education, but not to be conveyed in the words of the leaders without very extended quotation, is the inclusion in the ideal and practice of education of elements common to the classical period, but altogether

excluded from the mediæval. The first of these is the physical element. In quite a number of these treatises, there is elaborate presentation of the reasons for physical training and of the methods and forms of exercise appropriate thereto.

"It will thus be an essential part of your education that you be early taught the use of the bow, of the string, and of the spear; that you drive, ride, leap, swim. These are honorable accomplishments, and therefore not unworthy of the educator's care. Games, too, should be encouraged for young children, — the ball, the hoop, — but these must not be rough and coarse, but have in them an object of skill. Such relaxations should form an integral part of each day's occupation, if learning is not to be made an object of disgust."

This is from the same source last quoted, and though written for a prince, expresses an ideal common to most of these expositors. Similarly, questions of diet and of hygiene are also included. This emphasis was quite impossible in the preceding period, aside from the chivalric education, and, it must be confessed, again soon becomes almost as foreign. Accompanying this emphasis upon the physical element is a similar one upon matters of conduct and behavior. In these respects the early Renaissance education represents a fusion of the chivalric education and the literary education with a result much superior to that which was obtained in the preceding or succeeding ages. These, along with the idea that literary training should not be of that contemplative character that would lead to lack of interest and want of power in practical life, are aspects of their thought of education as a training in effective citizenship. The production of this practical judgment in everyday affairs was one of the chief purposes of the new education, however literary it might be. Hence the moral element receives a new emphasis, different from that of the mediæval spirit, where the moral was fused with or even limited to the religious and theological element. It was

also wholly distinct from and superior to that characteristic feature of the outcome of the Renaissance in Italy, where there was a tendency toward the elimination of the moral element as developed by Christianity in favor of the license prevailing during the later periods of Græco-Roman life and expressed so freely in their literature. While many Renaissance leaders of State, of Church, and of literature exerted such an influence toward lowering of moral standards, the consensus of the influence of educational writings and of schools is the reverse. This emphasis upon the moral element in education had less of a formal nature than that of the previous scholastic and monastic education and more of an immediate practical bearing on life than that previously fostered by the Church.

One further element characteristic of the new education was the æsthetic. Wholly eliminated from the mediæval education, owing to the dominance of ascetic ideas, it was reintroduced as the very breath of life of the new movement. It became the most characteristic feature of the change from the old to the new. It found chief expression in the study of literature and became a dominant feature of the work of the schools under the titles of Grammar and Rhetoric. This application of the importance of the manner of expression, related not only to language but also to various other forms of thought, expression, and, as previously noted, to conduct and behavior.

To summarize: The great educational contribution of the Renaissance was the recovery or reformulation of the conception of the liberal education, which included the physical, the æsthetic, the moral, the literary and social, as well as the abstract literary, theological, and ecclesiastical elements. This education aimed at the development of the *free* man possessing individuality of his own, and power of efficient participation in everyday life, based upon a wide knowledge of life in the past and an appreciation of opportunities of life

in the present. At its best it demanded that such a man should possess, as the evidence of his education, the moral purpose to make his knowledge and power of service in the needs of his country and the life of his fellow-men. It must be admitted, however, that this last feature was due rather to the fact that most of these educational treatises were written as a guide for the bringing up of children of the nobility, who were prospective rulers of petty principalities, and hence that this emphasis upon the practical and moral element was not so much a social one as one from the point of view of their own individual activities and opportunities.

(*b*) **The Narrow Humanistic Education.** — The content of this new education, consisting primarily of the languages and classical literatures of the Greeks and Romans, came to be indicated during this period by the term *humanities*. One of these earlier writers, Battista Guarino, summing up his treatise (1459) on this new education, writes as follows: "Learning and training in Virtue are peculiar to man: therefore our forefathers called them 'Humanitas,' the pursuits, the activities, proper to mankind. And no branch of knowledge embraces so wide a range of subjects as that learning which I have now attempted to describe." This passage hints at the change which soon came to pass with tremendous results for education. The interest in the liberal education described in the last section was in "the pursuits, the activities, proper to mankind," and the literature of the Greeks and Romans was merely a means to an understanding of these. Soon, however, — that is, by the sixteenth century, — that which was at first merely a means came to be considered as an end in itself, and the term *humanities* came to indicate the languages and literature of the ancients. Consequently the aim of education was thought of in terms of language and literature instead of in terms of life, and educational effort was directed toward the mastery of this literature. That portion of these literatures which was superior from the

formal standpoint only became the center of educational effort, and consequently the formal instead of the content or literary side of these writings became of greater importance. This change, though a gradual one, resulted in the formulation of a type of education distinct from and inferior to this revival of the liberal education out of which it grew. This newer conception was one of far wider application and one that has persisted well into modern times. As in popular usage the term *humanities* was narrowed to indicate merely the languages and literatures of the two peoples, so the term *humanistic* was narrowed to indicate the type of education corresponding to it. Through this usage, not quite exact for the term contains the original broader significance as well, we are forced to adopt, as following popular practice, the term *humanistic education*, to indicate the narrow linguistic education that dominated European schools from the sixteenth to the middle nineteenth century. Naturally, considerable variation existed in the character of the type, and yet it was always much more restricted than the earlier Renaissance education.

Elimination of Elements from the Conception of Education. — At its best the narrow humanistic education gave little place to the physical, and to the societary or institutional elements; it had little thought of broad preparation for social activity through familiarity with the life of the ancients; it gave no place to the study of nature or of society (history) and, at first, little even to mathematics, a study which later through its formal value conquered a definite place in this scheme. The individualism of this education was not so much a training in the exercise of personal judgment and of personal taste and discrimination, as it was a preparation for a successful career from the purely personal point of view in the formal life of the times. This end was gained through an education so formal and stereotyped that in time it eliminated most of those choicer results of the liberal form of the

humanistic education. The only phase of the æsthetic element preserved was the study of rhetoric. Education again became reduced to the work of the school and that work to the most formal character, relating solely to the study of language and literature. Since the child began immediately with the study of a synthetic language through the mastery of grammatical constructions, and since few children untrained have great power of literary appreciation or of acquisition, the work of schooling must be prolonged for years in its attention to the merely structural side of language. Even the literary appreciation could be no general attainment, so that for the rank and file of children educational work became a drill of the most formal and the most laborious character. In the universities the same tendencies prevailed that controlled in the lower schools. By the seventeenth century the study of the humanities was little less formal and profitless than had been the narrow routine of scholastic discussion of the fourteenth. Cicero now had become master in place of the dethroned Aristotle.

Ciceronianism. — At its worst this humanistic education became almost inconceivably narrow, and boldly asserted itself even as early as the first half of the sixteenth century under the name of *Ciceronianism*. The Ciceronians, arguing that the aim of education was to impart a perfect Latin style and that Cicero was the admitted master of that style, held that all work in the school should be confined to the study of the writings of Cicero or of his imitators, that all conversation and all writing should be carried on in Ciceronian phrase, and, finally, in the words of the Ciceronian controversialist, "they would discard all subjects that do not admit of being discussed in Cicero's recorded words." Against these, as represented by numerous Italian and French humanists, Erasmus carried on a long controversy and wrote his dialogue on *The Ciceronians*. In this satire the Ciceronian describes his ideal education. For seven years the child is

to read Cicero and not a single other author, until he has practically committed to memory the whole of the master's writing and has acquired a Ciceronian vocabulary. In order to accomplish this, huge lexicons of words are arranged; others of phrases; others of the forms of introductions and of terminations of periods; others of comparative tables of the various uses of words. Letters, declamations, conversations for ordinary usage, orations, are composed with infinite pains, in the effort to make a living language of that which at the time of its creation was no more the spoken language than was that of Shakespeare during the sixteenth century or of Browning in the later nineteenth. However, it served its purpose as the most extreme formulation of the purely humanistic disciplinary education that was possible. Erasmus combats this from the religious as well as from the educational point of view, and satirizes it in this summary of the Christian faith. For the following brief creed: —

"Jesus Christ, the word and the Son of the Eternal Father, according to prophecy, came into the world, and, having become man, voluntarily surrendered himself to death, and so redeemed his Church, and delivered us from the penalty of the law, and reconciled us to God, in order that, justified by grace through faith, and freed from the bondage of sin, we might be received into his Church, and preserved in its communion, might, after this life, be admitted into the kingdom of heaven;"

the Ciceronian would substitute

"The interpreter and son of Jupiter Optimus Maximus, our Saviour and our sovereign, according to the responses of the oracles, came down to the earth from Olympus, and, having assumed human shape, of his own free will sacrificed himself for the safety of the republic to the Dii Manes, and so restored it to its lost liberty, and, having turned aside from us the angry thunderbolts of Jupiter, won for us his favor, in order that, through our acknowledgment of his bounty hav-

ing recovered our innocence, and having been relieved from the servitude of flattery, we might be made citizens of his republic, and having sustained our parts with honor, might, when the fates should summon us away from this life, enjoy supreme felicity in the friendship of the immortal Gods."

While Ciceronianism will be recognized as an extreme, it will be seen when we come to examine the types of schools dominant during the sixteenth, seventeenth, and eighteenth centuries that, substituting the classical writers in general for their one master, — Cicero, — the whole tenor, purpose and method of these schools were but little broader than the spirit of the Ciceronians.

Character of the Narrow Humanistic Education. — The narrow humanistic education, then, posited a familiarity with the classical literature, or with that portion of it superior from a rhetorical point of view, and a writing and speaking knowledge of Latin as the sole aim of education. Consequently, the content of education and the subject-matter of school work became a prolonged drill in Latin grammar; a detailed grammatical and rhetorical study of selected Latin texts, especially of Cicero, Ovid, Terence, with less attention to Vergil and some of the historians; with some study of portions of the Scriptures, of catechisms and creeds in Latin, or of the *Epistles* in Greek. This command of Latin was perfected through frequent exercise in declamation and the presentation of the comedies of Plautus and Terence. This was supplemented by some attention to Greek and possibly to elementary mathematics, and, as a final accomplishment, a training in oratory; that is, a speaking knowledge of Latin as nearly classical or Ciceronian as possible. Methods followed the most formal, grammatical lines, with no appreciation of the child's nature. He was considered to be a miniature man differing from the adult in interests and powers of mind only in degree, not in kind. Consequently, the child on coming to school was given the task of acquiring

a foreign language, usually before he had acquired the ability to read or write his own, of acquiring this through a formal study of grammar and of rhetoric, and of getting this formal knowledge through text-books written in the same foreign tongue. There resulted a tremendous emphasis upon the memorizing powers of the mind, and from the higher formal training a keen power in discrimination of forms. All this produced a dialectic power little inferior in subtlety and "hair-splitting" acumen to that of the Schoolmen. The disciplinary spirit of such an education was of the harshest, because of the most formal character. Corporal punishment furnished the incentive to study as well as to moral conduct — not a very secure basis for either. This education, formal in its spirit as in its subject-matter, accompanied the return to the emphasis upon the formal in life, seen in the intellectual, the political, the religious, and the moral life of the seventeenth and eighteenth centuries.

SOME RENAISSANCE EDUCATORS. — The great educators of the Renaissance movement were not necessarily teachers, though many of them were. Such leadership was quite as frequently exerted through general treatises on the new learning or even by a development or stimulation of appreciation for literature. It was thus quite outside the pale of university or school that the early Italian leaders wrought. Intrenched as the old learning was in the educational institutions of every grade, the new learning grew up in hostility to the old, though in time it found a place by conquest of the old. In any educational sketch of the Renaissance some of the more prominent of those who reduced the new learning to the methods and the purposes of the schools must find recognition.

In Italy the advanced position occupied by Petrarch, Boccaccio, Barzizza, Æneas Sylvius, and other humanists has been noticed previously. Many of these early humanists

whether attached to courts or to universities, possessed but a meager income; consequently, it was their custom to supplement this by receiving private students into their homes Through such work, rather than through university lectures, these men reduced the new learning to definite educational procedure, and exercised their greatest influence on their times and on education. Both Barzizza and Chrysoloras, leaders respectively in the Latin and the Greek revival, conformed to this custom, and Guarino of Verona was one of the most successful and most famous. A somewhat more detailed statement of the work of one of these must answer for that of all.

Vittorino da Feltre (1378–1446) has been considered as the most famous of all these Italian educators, both by his own and by succeeding generations. Since none of his writings have survived, his reputation depends on the influence of his pupils and the traditions of his school. Vittorino was a product of the earlier generation of humanists, and had been a pupil, or at least had been associated with the three scholars just mentioned. He taught privately at Padua and Venice and publicly at the university at Padua before organizing the school which was to be the means of his great influence. In 1428, at the call of the Prince of Mantua, who wished to have the dignity of a school of the new learning at his court to rival that of the neighboring courts, Vittorino established at Mantua the school which he continued until his death. This school represented the first thorough organization of the new learning for school purposes as distinct from university lectures. The master here gave the Greek idea of a liberal education its first modern embodiment, and taught to the youth for the first time the literature, history, and civilization of the Romans instead of the mere form of their language. Later ages have given Vittorino the title of "the first modern schoolmaster." With the children of the court he, in time, associated children of his friends and of the neighboring

nobility until the school occupied an entire palace. His aim was to make the life of the pupils as pleasant and active as possible, so that the schoolhouse was made as termed, "The Pleasant House." Sport and games were joined with study, æsthetic appreciation was cultivated, and, above all, moral and Christian influences were strongly emphasized. While the curriculum yet retained the organization of the seven liberal arts, literature dominated and dialectic and grammar were wholly subordinated. The new purpose represented a yet more radical change, for education now became a direct preparation for a useful and balanced life in leadership, in State or Church, a citizenship based upon a knowledge of and sympathy for the best in the life of the Greeks and Romans. Self-government by the boys of the school, a dependence upon the natural interests of the pupil, use of the natural activities of the child as a basis for much of the work, and a strong emphasis upon activities and upon the constructive side of the work as furnishing an immediate introduction into a useful life, were some of the features exemplified in this school at Mantua.

Early German Humanists. — Among the early German humanists, John Wessel (1420–1489), Rudolph Agricola (1443–1485), Alexander Hegius (1420–1495), John Reuchlin (1455–1522), and Jacob Wimpfeling (1450–1528) possess the greatest reputation as educators. All these belonged to the order of the Brethren of the Common Life, or had some connection with their schools. Their educational importance consists rather in what they did for the introduction of the new studies and the new spirit among German students than for any formulation of educational doctrine or for any work in the organization of schools.

Wimpfeling, who shared with Melanchthon of the next generation the title of "preceptor of Germany," united in his person all of the functions performed by these other leaders. As lecturer and rector at Heidelberg, he did much to make

that university the center of humanistic learning in the west of Germany; as the author of texts and an adviser in the foundation and the conduct of schools, he influenced in a practical way the work of instruction; as a public man, he stood for the importance of the new learning to the cause of social and religious reform, though always within the Church rather than by a break with it; as a writer of educational treatises, he did much to formulate the doctrine of the new education. One of these treatises, *A Guide to the German Youth* (1497), is the earliest systematic treatise on education by a German. In his exposition of the curriculum and method of education, he follows the broader Renaissance traditions, advocates a wide selection of Greek and Latin texts and a study of their content as well as their form. "Let study be for the quickening of independent thought." But his exposition does not stop here. He discusses the problems of school life, the qualifications of teachers, the relation of education to social welfare, and similar topics. Education has for him a social and moral aim. "What profits all our learning if our characters be not correspondingly noble, all of our industry without piety, all of our knowledge without love of our neighbor, all of our wisdom without humility, all of our studying, if we are not kind and charitable?" In *Youth* (1500) he discusses the ethical basis of education and its general relation to religion.

Erasmus. — The most famous of all leaders of the new learning, the one whose work touched every phase of its educational bearing, the one whose influence was confined to no country, was Desiderius Erasmus (Gerardus Gerardi). Erasmus's long life (1467–1536) was wholly devoted to the furthering of the new learning, not so much as a form of self-culture, but rather as the most important factor in the much needed moral, religious, educational, and social reform of the time. As a scholar he probably does not take rank with some others of the critical phase of the Renaissance; but he

was the most effective humanist and educator of all these centuries. "Of all scholars who have popularized scholarly literature, Erasmus was the most brilliant, the man whose aim was the loftiest, and who produced the most lasting effect over the widest area," is the judgment of Professor Jebb. It was in this broader sense that Erasmus was an edu cational leader. All his work was primarily educational; — that is, designed to reform the many abuses in society that were the outgrowth of ignorance. Let us see how this was accomplished.

Erasmus's early education was designed to fit him for the monastic life. But after a few years of the narrow training of the typical monastic school, he was put at his ninth year in the famous church school at Daventer. Through the influence especially of Hegius and Agricola, he became imbued with enthusiasm for the new learning. Later, in Paris, in Oxford, and in Italy, he perfected his knowledge of languages and of the literature of the ancients. Throughout his life he remained a most indefatigable student, and often denied himself the barest necessities of life to obtain coveted books. During his sojourn at Paris and at Oxford, he was a teacher of private pupils and became the first teacher of the new learning at Cambridge. For many years he led the life of the itinerant scholar, at centers of learning in England, France, the Netherlands, Switzerland and Italy. For twenty years preceding his death he resided at Basle, then one of the chief centers of printing. Through his personal correspondence and his personal intercourse with students and scholars, he did even more of the work of instruction than through his formal connection with universities.

But far more than through either of these activities was accomplished by his work as a publicist, for few men have published more, and no man has seen his writings so widely disseminated in his own lifetime. All of his vast labors in this line were determined by his dominant educational or

reform motives. He possessed little of the archæological or æsthetic interests of many humanists, and none of the dialectic and metaphysical interests of the scholar of the old time. Against both of these he wrote, chiefly in the form of satire. This satire enters into many of his works, such as *The Praise of Folly*, *The Colloquies*, *The Adages*, and many of his briefer dialogues, such as the one on *The Ciceronians* previously referred to. *The Adages* were a collection of the sayings of the ancients, professing to give a summary of their wisdom, but in reality selected and commented upon so as to serve as an influence reformatory of existing abuses. *The Colloquies* discussed in dialogue form a general variety of topics so as to reveal the current abuses in Church, State, family, monastery, and university. These had all reduced themselves to ignorance and to abuse of ecclesiastical power, so that Erasmus became one of the greatest reformatory forces — certainly next in importance to Luther himself. Far different in character, but dominated by the same motives, was his work in issuing an edition of the New Testament in Greek, the first ever published; and also a Latin translation of the same. Later he edited the works of St. Jerome, some of the writings of the Greek fathers, and published paraphrases of the books of the New Testament. In all of this work he combated the attitude of the scholastic expositors of the Bible, based merely on isolated texts, and sought to bring about a more correct knowledge of the Scriptures and of the attitude of the Church Fathers as contrasted with the mediæval view. His whole effort was concentrated on giving to the public a more accurate and more intimate acquaintance with the Scriptures.

A third aspect of his educational labors is seen in his editions of many of the Latin and Greek classics. Here again he purposed to give a more accurate knowledge of this literature and to make such selections as would expose the formality and the corruption of his times. Most important

of these were the editions of Terence, Seneca, Cicero, Suetonius, and Plautus.

A work of even greater importance for schools was performed in the translation or preparation of Latin and Greek grammars and of text-books, of which the most famous and most widely used was *The Colloquies*. Since satire on moral evils is scarcely the proper form of a text-book for youth, the content of these dialogues is such that one may well question the advisability of the use of them in schools, but the age that spent much time reproducing the plays of Plautus, of Terence, and of similar texts could hardly be expected to object to the milder presentation of *The Colloquies*.

There remains to be mentioned yet one more source of Erasmus's influence, — his discussions of educational subjects direct. These are found in some of *The Colloquies*, in *The Ciceronians*, in his *Method of Study*, in his *Liberal Education of Children*. His educational beliefs — there was no system of philosophy — were as follows. The writings of the classical authors, the Church Fathers, and the Scriptures contain all that is necessary for guidance in this life and for the reform of the many existing abuses; but it is necessary to know these in the original and in their uncorrupted form Consequently, the great work of the schools is to study a wide selection of these and thoroughly to imbibe their spirit. No mere mastery of form is sufficient, nor is a limited selection of authors to be allowed. In place of dialectic distinctions or obscurities, rhetorical analysis and appreciation are to be used. Grammar necessarily forms the basis of all school work, but grammar as an intelligent approach to literature. Nature, history, and contemporary life are to illumine this literary study, as it in turn is to reform society. Such knowledge should be disseminated broadly, and should be free to women as well as to men. The moral purpose in education should ever be emphasized, and a study of religious literature and participation in religious services should form

a part of all such training. In a similar way, conduct, behavior, and the amenities of life receive due appreciation, though some things which Erasmus emphasizes as principles of politeness appear quite ludicrous to the reader of the present. The spirit, however, in this respect, is that of the best of the Italian Renaissance. The barbarous methods of discipline of the times are condemned and more attractive methods are commended. A study of the child is advised and personal care and direction of his studies insisted upon. The function of the mother, the importance of play and of exercise, the necessity of keeping education vitally in touch with the life of the times, are all recognized. Many details of sound method, such as repetition, procedure through the mastery of small portions of work, importance of introductory studies such as grammar and many similar topics, find exposition in his writings. Above all, — he combats the obscurantists of his own school who would narrow the new learning to a formalism scarcely less repellent, certainly no more fruitful, than the old which it replaced.

Few of the educational leaders of the sixteenth or seventeenth centuries, and probably none of the important schools, failed to reflect in some degree the educational influence of this great master.

English Humanistic Educators. — As England produced no great Renaissance leaders who exerted any wide reputation, so her humanistic educators are those of rather local, or, at best, national influence. Among these were the scholars who introduced Greek and the new learning into the university, such as Linacre, Grocyn and Cheke; or those who organized it for the schools, such as Colet, Lilly and Ascham; or those, like More, who exerted a general influence similar to that of Erasmus. Most of these will receive casual mention in subsequent paragraphs. Special attention can be given to but one.

Roger Ascham (1515–1568) has achieved a reputation above

all other English humanistic educators. This is due to two things: first, that he was one of the first Englishmen to write a treatise on education in the vernacular; and, second, that he possessed a style that has given him a place in literature as well as in educational history. Ascham was a product of the early Renaissance revival at Cambridge, and succeeded Cheke, his master, to the chair of Greek. Later he became tutor to the Princess, later Queen Elizabeth, and then her Latin secretary. As with Sturm, Reuchlin, and many of the humanistic leaders, he was a man of public affairs as well as an educator, and speaks with the authority of such experience as well as that of a schoolmaster. This authority and his royal influence gave him his reputation during his lifetime, for his educational treatise, *The Schoolmaster*, was not published until after his death (1571). His conception of education, though definitely limited by the title of his book to schoolroom education, is that of the typical humanists. Its aim is defined in terms of culture and virtue. Moral purpose and practical efficiency are supposed to be its outcome; but these ends are to be gained wholly by the use of literature. His analysis of the subject-matter of education shows a wide knowledge of the classics, and his recommendations are similar to those of Erasmus and of Sturm, whom he closely followed. His treatise, however, is so largely devoted to a discussion of method that the general impression left from the insistence on the importance of grammar is that of the narrower humanists. All learning seems not only to be based on this, but to center in it. In his treatment of method, Ascham undoubtedly stated the best Renaissance practice, and since this has not been discussed in previous sections, it can most appropriately be given here, not only as representative of Ascham, but of the best humanistic practices.

"First, let him teach the child cheerfully and plainly, the cause and matter of the letter; then let him construe it into

English so oft as the child may easily carry away the understanding of it; lastly, parse it over perfectly. This done thus, let the child, by and by, both construe and parse it over again; so that it may appear the child doubteth in nothing that his master taught him before. After this, the child must take a paper book, and sitting in some place where no man shall prompt him, by himself, let him translate into English his former lesson. Then, showing it to his master, let the master take from him his Latin book, and pausing an hour at the least, then let the child translate his own English into Latin again in another paper book. When the child bringeth it, turned into Latin, the master must compare it with Tullie's book, and lay them both together; and where the child doth well, either in choosing or true placing of Tullie's words, let the master praise him and say, 'Here ye do well.' For I assure you, there is no such whetstone to sharpen a good wit, and encourage a will to learning, as is praise. In these few lines I have wrapped up the most tedious part of grammar, and also the ground of almost all the rules that are so busily taught by the master, and so hardly learned by the scholar in all common schools; which after this sort the master shall teach without all error, and the scholar shall learn without great pain, the master being led by so sure a guide, and the scholar being brought into so plain and easy a way. And therefore we do not contemn rules, but we gladly teach rules; and teach them more plainly, sensibly, and orderly than they be commonly taught in common schools. For when the master shall compare Tullie's book with his scholar's translation, let the master at the first lead and teach his scholar to join the rules of his grammar-book with the examples of his present lesson, until the scholar, by himself, be able to fetch out of his grammar every rule for every example; so as the grammar-book be ever in the scholar's hand, and also used of him as a dictionary for every present use. This is a lively and perfect way of teaching of rules; where the common way used in common schools, to read the grammar alone by itself is tedious for the master, hard for the scholar, cold and uncomfortable for them both."

Though the details of method are expanded to constitute the greater part of the book, this double translation consti-

nutes the essential practice. This method is a very great advance beyond the ordinary method of committing to memory meaningless forms and rules in an unknown tongue. Ascham's treatise on method has been considered, not only the best of his times, but has often been pronounced the best of any time. Dr. Johnson said, "It contains perhaps the best advice that was ever given for the study of languages."

The Schoolmaster contains one other reform idea expanded and defended almost as thoroughly as the subject of method; that is, the matter of discipline. Ascham opposed the brutal discipline characteristic of all schools and masters of his time, and argued for a different attitude of teacher to pupil both for moral and pedagogical reasons. Nevertheless, corporal punishment continued to be used, not only as a corrective for evil, but as the chief incentive to study. The two great contributions of Ascham to the educational thought of the time were these of the uselessness and the evil of inflicting physical pain and the improved method as a substitute for the purely formal approach to grammar and literature, and yet in both matters the English schools continued in the old way for fully two centuries longer.

TYPES OF HUMANISTIC SCHOOLS. — The educational dominance of the humanistic ideas was exerted first through the conquest of existing educational institutions, primarily the universities and the recently founded burgher schools; then through the multiplication of such schools more thoroughly embodying the new spirit than was possible in those founded under the ægis of the old traditions; finally, by the establishment of new types of schools wholly expressive of the new spirit. By the time this latter stage was reached the Renaissance movement had coalesced with the Reformation movement, so that these new types of schools were connected with some aspect of the latter tendency. In the earlier part of the Renaissance these schools attempted to

embody the broader idea of the liberal education, but soon became representative of the narrow humanistic view only. This change is explained partially by the fact that the spirit of the movement itself was narrower; partially, by the natural tendency toward formalism in the attempted realization of any general and somewhat indefinite ideal in education; and partially by the prolonged, preliminary training in language forms necessary to the development of literary application or use of a foreign tongue in formal discourse.

In time, certainly by the latter part of the sixteenth century, the formalism in the work of these institutions was no less characteristic and no less rigid, though different in content, than the formalism of the later mediæval education. These schools, and this narrow humanistic education, represented the practice and the ideal of education for several centuries, even well into the nineteenth, before there was any general revolt against them. In the subsequent consideration of other types it must be borne in mind that these latter were protests only and that the normal condition was the one determined at the period now under consideration.

The Universities. — These general statements especially are true of the universities, for the old traditions long resisted the spirit of the new learning. Though the conquest of some was complete, and the new subjects in time found tolerance in all, the formalism of their work was not radically changed. The most important modifications were a broadening of the authority which dominated the work and the change in content made by the addition of literary and linguistic subjects, especially Greek and the substitution of classical for ecclesiastical Latin. It was in the Italian universities, those of Pavia, Florence, Padua, Milan, and Rome, that the new learning first found a permanent home. Growing out of the influence of Petrarch and Boccaccio, teachers of rhetoric in the universities began to devote their time to the study of the classical authors, the "imitation of the

ancients" became a passion with many, and students were drawn from the dominant interest of law and dialectic. This imitation led to the study of the classics and from that to an attempt at reproduction, especially through epistolary efforts, that in the case of the leading humanists produced a real literature; for this imitation was not only an attempt to master the style of the ancients, but also to assimilate the content of their writings and their dominant ideas and their conduct of life. Of these teachers probably Barzizza (1370–1431) was the most noted, and when the scholarship became critical Lorenzo Valla (1407–1457) the most learned. The introduction of the knowledge of Greek through the Byzantine Greeks and especially the work of Chrysoloras has been mentioned. Boccaccio was probably the first Italian who got hold of any conception of the classical Greek. During the fifteenth century the teaching of Greek either in the universities or in the schools under the patronage of local lords, or under wholly private auspices, became quite common throughout Italy; through students from the North this new learning was carried into all those countries. By the sixteenth century the classical study in these universities had degenerated into that narrow *Ciceronianism* previously noted.

As the new learning had spread through Italy chiefly through the wandering scholars and teachers, so it passed to the universities of the North during the latter half of the fifteenth century. The University of Paris, where the Hieronymians had gained a stronghold and favored the new learning, was the storm center. Greek was taught here as early as 1458. The political connection between France and Italy was especially close after 1494; this aided the development in intellectual sympathy, already strong because of the basal Latin character. During the sixteenth century French scholars and printers were the leaders of the movement both within and without the universities.

After 1460 the German universities of Heidelberg, Erfurt,

and Leipzig were frequented by these wandering teachers of "poetry." The first permanent chair of the new learning, "Poetry and Eloquence" it was called, was established at Erfurt in 1494. Wittenberg, founded in 1502, was humanistic from the beginning, and by 1520 the new learning was at least represented in all and thoroughly dominant in several of the German universities.

The new learning was introduced into England through Oxford by a group of students who had acquired their inspiration from the Italian schools. The foremost of these Hellenists were William Grocyn and Thomas Linacre. Around these men Erasmus found a group of scholars gathered when he came to Oxford in 1498. At Cambridge, it was Erasmus himself who introduced the new learning from 1510 to 1513. Ascham and Colet were Cambridge products of the early sixteenth century.

Schools of the Court and of the Nobility. — The conservatism, or the hostility of the universities and of the Church and monastic schools to the new learning, led to the establishment of many schools embodying the new spirit through the patronage extended to scholars by the monarchs and the nobility of the times. This was especially true in many of the small Italian states, where the dignity of the court was much enhanced by such attendants. A great rivalry grew up among these states for the attachment of noted scholars or for the possession of famous schools. The customary migratory life of these scholars in their search for learning or for new honors encouraged this competition and assisted in the dissemination of the new learning. At Florence, Verona, Padua, Venice, Pavia, and numerous Italian cities such court circles flourished, frequently with no organization into schools whatever. Some of these rivaled the universities and some were in connection with the local universities, which became in a way, appendages to the court. Still others, as the famous one at Mantua under Vittorino of Feltra, possessed indepen-

dent organizations as schools. Many such schools of these early masters embodied, though in a less notable degree, the same ideas as those of Vittorino. The function which these schools had in the education of the children of the court led to an emphasis on the physical and social elements in education as well as on the literary, and resulted in a fusion of the chivalric and humanistic ideas. Hence the outcome was an approximation to the schools of the Greeks such as was seldom found in the humanistic schools of North Europe. At the same time, it will be remembered, this inclusion of elements of education, often overlooked, was offset by the fact that it was the personal development of these leaders that was held in view rather than any broader social or moral reformatory ends.

The *Furstenschulen*, or schools for princes, founded in Germany during the early sixteenth century, were similar to these court schools of Italy. Resembling these latter in their purpose, in their curriculum, in their complete control over the life of the boys and to a certain extent in their spirit, they differed from the dominant type of German Renaissance schools in a variety of respects. They were not controlled by municipalities as were the gymnasien, but were under the immediate control of the courts; they were boarding schools, and hence had a wider supervision and more thorough control over the students; they aimed to train directly for leadership in Church and State; their students were drawn chiefly from the families of the nobility; in respect to the content of their curriculum they represented a broader if less definite type than the gymnasien and to an extent paralleled the work of the universities. While the discipline of these schools was quite monastic in character, the curriculum was less rigid and somewhat more responsive to the needs of the times than was that of the gymnasien. The most important of these schools, never very numerous, were those of Pforta, Meissen, and Grimma.

The Schools of the Brethren of the Common Life, mentioned previously as among the best schools previous to the Renaissance movements, and mentioned through their leaders, Hegius, Agricola, Reuchlin as furnishing typical humanistic educators, were among the earliest of schools north of the Alps to embody the new learning. By the middle of the fifteenth century these schools, numbering one hundred and fifty, were scattered throughout Flanders, France, and Germany, and were represented by their teaching members in many other schools. Opposition to scholasticism and interest in the vernacular and in Biblical instruction had well prepared the soil for the planting of the new learning. Soon the new spirit in grammatical studies and the devotion to literature, as well as the great interest in Greek and Hebrew and advanced studies in general, became characteristic of the schools of the order. The work and the constitution of this order furnished the chief source of suggestion for the organization of the Jesuit schools, which by the latter half of the sixteenth century supersede those of the "scholarly brethren," as the Hieronymians were called.

The Gymnasien were the typical humanistic schools of the Teutonic countries, and have remained until the present time as the best type of the secondary schools of those countries as well as the best type of the humanistic schools in general. They were formed from the existing higher burgher schools by the substitution of the classical for the mediæval Latin, the study of literature for the old formal rhetoric, of mathematics for dialectic, and the addition of Greek and in many cases Hebrew. The school at Schlettstadt in Alsace under the influence of the Brethren of the Common Life was one of the first to respond to the new spirit. From its origin, about the middle of the century, it had under its first rector, Dringenberg, been hostile to the old education. From it came many of the earlier German humanists, as Wimpfeling, Beatus Rhenanus, and John Sapidus. As early as 1485 the new

influences were at work in the burgher school at Nuremberg, and in 1495 "poetry" was added to the curriculum. A few years later "poetry" and "oratory" were introduced into all the higher schools of the city. In 1521 Latin, Greek, and Hebrew were introduced into the old cathedral school, and five years later Melanchthon inaugurated a new secondary school embodying his curriculum. By this time many other city schools had been remodeled, and the term *gymnasium* began to be used to indicate the schools of the new discipline. The gymnasium at Strassburg, organized in 1537 by John Sturm, a pupil of Wimpfeling, and conducted by him for nearly forty years, exerted the greatest influence of any of these schools. Though somewhat more advanced than most gymnasien, since Sturm in his later years aspired to develop a university, in its organization, method, and curriculum it may be taken as typical. The work of the gymnasium was divided into ten grades, or years, closely articulated, with work accurately gauged for the age and the stage of advancement of the pupil; with method carefully determined, and faithfully adhered to for years; and with subject-matter for the most part chosen from the Latin classics, with some from the Greek and from the New Testament Epistles in Greek. As representative of more than three centuries it may be well to notice the curriculum of one of these schools more in detail. No better one exists, nor one worked out more carefully than this of Sturm. A summary of the curriculum is as follows: —

Tenth Class: The alphabet, reading, writing, Latin declensions and conjugations; catechism in Latin or German. Ninth Class: Declensions and conjugations; Latin vocabulary of terms of everyday life; irregular Latin forms. Eighth Class: Continuation of above; composition of Latin phrases; some letters of Cicero; exercises in style. Seventh Class: Syntax in connection with Cicero's *Letters;* composition; translation of catechism, etc., into Latin. Sixth Class: Translation of Cicero, Latin poets, catechism, and *Letters* of Jerome with grammatical exercises; Greek begun. Fifth Class:

Latin versification, mythology; Cicero; Virgil's Eclogues; Greek; exercise in style; double translations; Paul's *Epistles*. Fourth Class: Same as fifth class, with wide reading of Latin authors. Third Class: Rhetoric; *Orations* of Cicero and of Demosthenes; double translations of orations; composition of letters; presentation of comedies of Plautus and Terence in this and higher classes. Second Class: Greek orators and poets; dialectic and rhetoric in connection with Cicero and Demosthenes; presentation of selected dramas of Aristophanes, Euripides, and Sophocles, in addition to Plautus and Terence. First Class: Dialectic and rhetoric; Virgil, Horace, Homer, Thucydides, Sallust, *Epistles of St. Paul.*

The entire work of the school was determined by its great purpose, — the development of the ability to speak and write the Latin of Cicero. Though Martial, Horace, Virgil, Terence, and Plautus were used, Cicero's writings formed the bulk of the curriculum. The orators and the comedians were especially studied for the command which they gave of the spoken language. There was much of declamation, oratory, presentation of plays, disputations, letter writing in the school for the same reason. Sturm defined the aim of education to be piety, knowledge, and eloquence. By the first he meant knowledge of catechism, creed, etc., with reverence for religion and with participation in Church services; by knowledge he meant the Latin language and literature; and by eloquence the ability to use that language in practical life. As a result, Sturm trained many of the leaders of his time; his school often had more than a thousand pupils from many lands, and many from the nobility. His influence was exerted on the schools of the sixteenth century through the many expert teachers whom he trained, through the influence of his model course of study so often imitated, through his published texts more carefully graded than any hitherto, through his correspondence as with such men as Ascham and Melanchthon, and through his personal advice and influence in the establishment of schools. Though representative of the

times, the school was of the narrowest humanistic type. No attention was given to the vernacular, and only casual mention is made of geography and mathematics. In later years Hebrew was introduced. This represents the gymnasium of the sixteenth century; and with some gradual curtailment of the classical element in favor, first, of mathematics, then of modern language and history and, finally, to some slight extent, of the natural sciences, it represents the gymnasium from that time to the present.

With the progress of the Reformation and the organization of state systems of schools, the gymnasien passed under the control of the central governments and became, as they have remained, the unifying core of these systems.

The English Public Schools represent the formulation of the same type of schools. Here such schools are on foundations, independent of both State and Church, furnished by private benevolence or by royal endowment. It is to this characteristic that the term *public* refers, for tuition charges are universal, as with the gymnasien, and are here quite high. Such schools had been founded before the Renaissance, beginning with Winchester (1379) and Eton (1440). But it was not until after the founding of St. Paul's in London (1512) that they became either numerous or representative of the Renaissance. St. Paul's, founded by John Colet, to whom reference has been made as one of the early humanistic leaders of England, became the model in curriculum, in method, and in purpose. The first master, William Lilly, also a humanistic leader, perpetuated his influence and that of the school in a Latin grammar that was the standard text for all English schools for generations. The curriculum was outlined in the rules formulated by Colet as follows: —

"As towchyng in this scole what shalby taught of the maisters and lernyd of the scolers, it passith my wit to devyse and determyn in particuler but in generall to speke and sum what to saye my mynde, I wolde they were taught all way in

good litterature both laten and greke, and goode auctours suych as haue the veray Romayne eliquence joyned withe wisdome specially Cristyn auctours that wrote theyre wysdome with clene and chast laten other in verse or in prose, for my entent is by thys scole specially to incresse knowledge and worshipping of god and oure lorde Crist Jesu and good Cristen lyff and maners in the Children And for that entent I will the Chyldren lerne ffirst aboue all the Cathechyzon in Englysh and after the accidence that I made or sum other yf eny be better to the purpose to induce chyldren more spedely to laten spech And thanne Institutum Christiani homines which that lernyd Erasmus made at my request and the boke called Copia of the same Erasmus And thenne other auctours Christian as lactancius prudentius and proba and sedulius and Juuencus and Baptista Mantuanus and suche other as shalby tought convenyent and moste to purpose vnto the true laten spech all barbary all corrupcion all laten adulterate which ignorant blynde folis brought into this worlde and with the same hath distayned and poysenyd the olde laten spech and the varay Romayne tong which in the tyme of Tully and Salust and Virgill and Terence was vsid, whiche also seint Jerome and seint ambrose and seint Austin and many hooly doctors lernyd in theyr tymes. I say that ffylthynesse and all such abusyon which the later blynde worlde brought in which more ratheyr may be callid blotterature thenne litterature I vtterly abbanysh and Exclude oute of this scole and charge the Maisters that they teche all way that is the best and instruct the chyldren in greke and Redyng laten in Redyng vnto them suych auctours that hathe with wisdome joyned the pure chaste eloquence."

This rather conservative attitude toward the new learning becomes a more confident one with a half century's experience and then approximates that of the continental schools. The organization of the school was into eight grades, though later the typical one for these public schools was that of six grades or "forms."

At the time when Colet founded St. Paul's there existed in England from two to three hundred secondary schools in connection with monasteries, with cathedral, or collegiate



First English Public School; Winchester, 1387. Relationship with Monastic Schools indicated.

churches, with charity foundations in parish churches, with guilds, or upon independent foundations. There were few of these latter, and all were inferior to Winchester and Eton. The close connection between these and the Church or the monastic schools is indicated by the illustration given, which is the oldest representation of Winchester School. The chief difference between these and monastic or hospital foundations was in the beginning not one of kind but of degree. Here priests and paupers were provided for as well as scholars; only there were seventy of the latter and three priests and sixteen charity foundationers. The main function of the institution was the training of future priests by the immediate preparation of students for New College, Oxford; hence teachers were provided, and behold! a new institution, a school rather than a monastery or a hospital. With the progress of the Reformation movement came the dissolution of monasteries and chantries and consequently the suppression of many of these schools under Henry VIII (1509–1547). Many, however, escaped suppression, and numerous others were refounded, thus giving to Edward VI in later days the undeserved title of "founder of schools." What concerns us now, however, is that these schools were all remodeled on Renaissance lines, and quite as complete a substitution of the schools of the new learning occurred as did in Germany. These public schools, nine of which, Winchester, Eton, St. Paul's, Westminster, Harrow, Charter-House, Rugby, Shrewsbury, and Merchant Taylors, are termed "great," continue the narrow humanistic training as formulated during this early Renaissance period, almost without any modification, until the report of the royal commissioners of investigation in 1864.

The Grammar School of the American colonies was a transplanted English public school, now, however, for the most part supported and controlled by the colonies and the local town governments. Only rarely did it receive a foun-

dation by bequest, and even more rarely was it founded by religious or private association. The curriculum, the method, and the purpose were almost identical with those of their English prototypes. Such schools were to be found in all the colonies, with the exception of Georgia and North Carolina, but were most numerous in the New England colonies where the religious motive was prominent and where colleges demanding the preparatory grammar training were influential. In Massachusetts, Connecticut, and Maryland, systems of such schools existed, and in the first of these colonies such schools were established in considerable number. The first of these in America was the Boston Latin School, founded 1635, with a continuous existence to the present time. The illustration given is of the old schoolhouse in connection with King's Chapel, as it was during the early part of the eighteenth century, at the close of the long mastership of Ezekiel Cheever. Cheever, the most famous of colonial schoolmasters, came to the Boston school in 1670, after a teaching experience of years in New Haven and in Charlestown, and served yet thirty-eight years in Boston. Owing to the fact that social and educational traditions were far less binding in the new country, the humanistic school gave place to a new type in America sooner than in any of the European countries. By the close of the eighteenth century the Latin schools had given place to the academy, to be mentioned later.



THE BOSTON LATIN GRAMMAR SCHOOL, FOUNDED 1635.

The Jesuit Schools, which flourished in great numbers during the latter half of the sixteenth, the seventeenth, and

the first half of the eighteenth centuries, constitute a most important type of the humanistic schools. They represent for Roman Catholic countries this type of education. In their curriculum, influenced largely by the humanistic study in the universities, by the schools of the Brethren of the Common Life, and somewhat by Sturm's successful institution, they are thoroughly humanistic. Some further provision was made for the study of mathematics, of history, and of the content of literature than in Sturm's curriculum, but for the most part the work of these schools was of the narrow humanistic type of the most successful character. Since these schools constitute the most prominent example of the types of schools growing out of the religious controversies of the sixteenth century, fuller presentation of them must be given in the following chapter.

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TOPICS FOR FURTHER INVESTIGATION

1. What similarity exists between the educational situation and educational problem of the Renaissance and of the Sophist period of Greek education?

2. Describe the ideal of culture and of personal development as found in the writings of Petrarch, Boccaccio, etc.

3. Make a list of the subjects discussed as of interest in the writings of Petrarch or any Renaissance writer, and compare with a similar list from writings or chronicles or tales of the mediæval period.

4. What contrasts can you discover between the worldliness of the Renaissance as shown in the literature of the period with the other worldliness of the mediæval period?

5. To what extent were the earlier scientific discoverers — *e.g.* Laurentius Valla, Copernicus, Columbus — guided by knowledge gained direct from writings of the Greeks?

6. What similarity exists in conception of aim, organization, method, etc., of education of early Renaissance writers and those of Greek and Roman writers? (See translations in Woodward.)

7. What is a liberal education?

8. Can there be an absolute standard for a liberal education?

9. Can there be an absolute curriculum for a liberal education?

10. What is the meaning and content of humanism?

11. Make a study of Erasmus's dialogue on Ciceronianism.

12. Give an analysis of Erasmus's treatise on methods of teaching.

13. Give an analysis of Wimpfeling's treatise on *Youth* (*Adolescentia*) or of his *Guide to the German Youth.*

14. Give an account of the educational activities and influences of the Brethren of the Common Life.

15. What are the merits and demerits of *The Colloquies* of Erasmus as a text-book when compared with material previously used?

16. What evidences do you find of the inclusion of new elements in education in the Renaissance period?

17. Trace the place held by the physical element in education from the ancient through the mediæval and modern periods. The æsthetic element.

18. Describe in detail the work of Reuchlin or of any of the humanistic educators mentioned but briefly.

19. What similarity exists between the methods described in detail in Ascham's *Schoolmaster* and the best methods in use in the present in teaching languages?

20. Make a comparison between Lilly's *Grammar* and those now in use.

21. Give a description of the content and method of work of the English public school.

22. What material can you find relating to the method and subject-matter of work of the colonial grammar school?

CHAPTER VII

THE REFORMATION, COUNTER-REFORMATION, AND THE RELIGIOUS CONCEPTION OF EDUCATION

WHAT THE REFORMATION WAS. — The most fundamental features of this period have already been mentioned in stating the changed character of the Renaissance in the North. For the Renaissance in Germany is not to be distinguished from the Reformation, save in its spirit and in its outcome. The interest of the Italian Renaissance was largely in classical and pagan literature; the Teutonic Renaissance in patristic and Christian literature. As has been previously stated, the one was concerned in personal culture, the other in social reform in morals and in religion. One was individualistic and self-centered, the other was social and reformatory. The explanation of the difference is found partially in the fact that the civilization of the Latin countries was based directly upon the classical institutions, the traditions and influences of which were ever present, while the civilization of the Teutons had been a direct outgrowth of their Christianization; partially, in the fact that the Teutonic mind possessed a moral and religious bent, while the Latin mind was predominantly secular in its interests. The interests of the fifteenth century were literary and æsthetic, and involved the recovery and appreciation of the classical literatures. Those of the sixteenth century were ethical and theological, and involved criticism and reconstruction rather than appreciation.

This criticism and this reconstruction were directed toward two aspects of religion, one abstract and theological, the other

practical and moral. In both the ethical and the theological aspects of the movement a division of the Church was involved; in the former necessarily, in the latter only temperamentally. The movement began with the former, that is, with the effort to reform the many abuses within the Church. The necessity for such a reform was admitted by the Church long before the actual break occurred, and was striven for by many sections of the Catholic Church both before and after the open break had taken place. This tendency toward moral reform within the Church culminated in the Council of Trent (1545–1562), and in itself could probably have caused no permanent division. But by that time the abstract and theological differences, due to fundamental disagreement, had become so prominent that harmonization was no longer possible.

This fundamental and necessary divergence in the conception of religion is due to the nature of the human mind, and had appeared in the discussions of the later Middle Ages between nominalism and realism. But so long as men's minds remained essentially uncritical and without the basis for forming positive judgments, so long the inherent incompatibility of the views did not cause open rupture. With the Renaissance this basis was furnished in the knowledge of ancient and patristic literature and through the critical spirit thus developed. Hence it was inevitable that these two views of religion should come in conflict. The one view looks upon religion as a completed truth, revealed in its entirety by divine providence and given into the hands of an institution, whose origin, constitution, and authority are divine in the same sense and for the same reason that obtain in the case of the original revelation. To the other view, religion is a truth divine in its origin, but completed only with the growth and through the development of the spirit of man. It is not a completed truth, but one whose principles are perfected by progressive application through the lives of men. Its particular meaning

in time and place, is given by the application of man's reason to the original revelation. Both accepting the original revelation as the basis, the one finds the truth completed in the authority of the Church, the other in the reason of the individual. Hence the Reformation is but the continued expansion of the function of reason originating in the Renaissance, and now applied to matters of religion. This statement explains the essential spirit of the movement, notwithstanding the fact that the reformers, including Luther, denounced reason and asserted their unquestioned submission to authority. The same tendency to observation, comparison, criticism, that is the appeal to original sources and to experience which characterizes the humanistic Renaissance, is the essential characteristic of the Protestant Reformation. And from this grew the most important educational consequences.

The counter-Reformation, arising out of the period of the Council of Trent and using as its chief means on the negative or repressive side the Inquisition, and on the positive or constructive side education, indicated the reaction against this movement toward separation. This education was controlled for the most part by the newly organized teaching congregations, chief among which was the Society of Jesus.

INFLUENCE OF THE PERIOD ON THE CONCEPTION AND SPIRIT OF EDUCATION. — The logical outcome of the views of the reformers would have led to a continuous development of the Renaissance emphasis upon the use of reason as the guide to the interpretation of secular life and of nature, to the restriction of the authority of the Scriptures to religious matters, and to the use of reason by the individual even in the interpretation of the Scriptures. But the tendencies in all of these lines were checked before the expiration of a single generation. Luther, in the early days at Wittenberg, wrote: "What there is contrary to reason is certainly much more contrary to God. For how should not that be

against divine truth which is against reason and human truth?" And even later he said, "It is admitted that reason is the chief of all things, and among all that belongs to this life, the best, yea, a something divine." But before the close of his life he stated as his view that, "The more subtle and acute is reason, the more poisonous a beast, with many dragon's heads, is it against God, and all His works." This latter position is reiterated over and over with characteristic vehemence. And this change is more than individual; it is general.

The Renaissance-Reformation movement gradually divides into three main currents. There is, first, the scientific and philosophical tendency, which does not become prominent until the seventeenth century, and which we shall notice under the later realistic movement; next, the humanistic tendency, which, hampered between the scholasticism of both branches of the Church and the formalism of Ciceronianism, finds a somewhat precarious home within the pale of the Roman Catholic Church, chiefly in France; and finally, the theological tendency of the intervening period, which possesses all north Europe and dominates thought-life as well as education.

The Reformation leaders recognized for themselves that the doctrine of the Reformation contained inherently the right of liberty of conscience and the duty of interpreting the Scriptures according to one's own reason, but they found it quite as difficult as it had been before to recognize it for others. Hence, instead of a development of the critical and rational faculties, through application to literature, religion, and secular affairs, to institutional life and to the realities of nature, all this was left for succeeding centuries. Even then this progress was through bitter conflict with the reformed churches as well as with the Roman Catholic. This liberalism of thought and emphasis on reason finds little realization in the education of the time, either as formulated into doctrine, as organ-

ized into schools, or as expressing the somewhat indefinable spirit of education.

Formalism in its Results. — Instead of this we find education dominated by a formalism growing out of the dominant theological groups, the Lutheran, the Calvinistic, the Zwinglian, and the Socinian, with their almost innumerable subdivisions into which the Protestant movement divided. Lutheranism especially, following the political divisions of the German people, became a congeries of discordant sects, whose chief interests were now in the petty conflicts among themselves. The result was a multitude of creeds, expanded to cover the minutest details, carrying now to their respective adherents all the authority of the Scriptures, and enforced so far as the German states were concerned by the powers of government. Not only was intellectual life bound within these narrow limits, but the education of the schools, higher and lower, took its purpose and received its spirit from this same formal and narrow interest. The counter-Reformation intensified the same attitude upon the part of those of the Catholic communion. For the later half of the sixteenth and for all of the seventeenth century, so far as the typical schools were concerned, there existed a new scholasticism, either Protestant or Roman Catholic, in which there was a return to Aristotelianism as a basis for the endless definitions and distinctions made necessary by these involved systems. Though the content was somewhat different, the spirit and the form of this scholasticism of the sixteenth century was the same as that of the thirteenth.

Hence it was that the Reformation failed to produce during the sixteenth and seventeenth centuries those intellectual and educational results which were logically involved in the basal positions of the reformers so far as these related to free learning, the spread of culture, and the development of science. The bitter partisan and destructive religious wars of the entire period were partially responsible for this domi-

nance of the state over religion, and for the formal and scholastic character of education. These conditions also explain the low ebb of educational affairs during the seventeenth century, and the fact that the educational efforts of the early reformers and the reformed states did not become realized until late in the seventeenth or in the eighteenth century.

This formal theological education appeared not only in the content of the work of universities and higher schools and in the spirit of the intellectual life in general, it appeared also in the concrete work of the schools. Here it was not the actual training in formal theology and a devotion to theological disputation, though there was enough of that, so much as it was the training in the old dialectic power, the power of discrimination in form, of making fine distinctions in the meaning of words and the accurate use of abstract terms. There was little or no interest in content. Thus there resulted the same emphasis on the memory and abstract logical activities of the mind, without any reference to the inherent validity of the material upon which it worked.[1]

Humanistic Content. — On the content side the Reformation educators accepted the humanistic curriculum, though they used it for a different purpose than did the earlier humanistic educators. This acceptance resulted from the vital connection between the two movements, previously noted, and from the fact that the mastery of the classical languages was essential for the purpose of providing for a direct study of the Scriptures and of the Fathers in the originals. Consequently, this study became the immediate purpose of the Protestant education and found a prominent place in the Protestant schools. Through the use of the catechisms, creeds and church services, which characterized all schools of the times, whether in Protestant or Roman Catholic countries, through the use of the Scriptures as texts, and through the direction of the entire work of the school to the exposition of Christian

[1] For concrete details of this formalism, see pp. 384, 391, 393–4, 525–7.

literature and Christian doctrine and to the development of exegetical and polemical ability, the curriculum received a profound religious bias.

Institutional Effects. — One other great educational influence of the Reformation, calling for more extended notice later, deserves mention here; namely, the establishment of systems of schools based upon the idea of universal educa-



CATECHETICAL INSTRUCTION IN THE PROTESTANT PUBLIC SCHOOLS.

tion. Such systems of state public schools are wholly due in their origin to the Reformation. Their development and completion awaited the growth of the political idea that the welfare of the state depends upon the education of the individual citizen. The basis for all these modern systems of schools is found in the Reformation doctrines that the eternal welfare of every individual depends upon the application of his own reason to the revelation contained in the Scriptures. Consequently, both the ability to read the Scrip

tures in some form, the desirability of reading them in the original, and the necessity for the training of the rational powers, presented new tasks for the school, and demanded the universal and even compulsory education of children of all classes and of both sexes. It is not maintained that the Reformation gave the Bible to the people in the vernacular, for there were at least twenty German editions before that of Luther; nor that it gave the elementary school to the people, for it is probable that the actual opportunity for education open to children of all classes was greater for the century before the Reformation than it was for the century afterward. But the modern practice is undoubtedly an outgrowth of the principles involved in the Reformation.

General Effects. — The religious conception of education which prevailed during the sixteenth and seventeenth centuries, and, in fact, was dominant well into the nineteenth, was marked by certain general characteristics in both Protestant and Roman Catholic countries.

The chief function of education was to develop the religious beliefs and practices, and the ecclesiastical affiliations and interests of the child, for upon these depended his eternal welfare. Religious material, and the linguistic training necessary for the use of such material, constituted the bulk of the subject-matter. Such methods were used as would cultivate a respect for authority and tradition, and would produce a dialectic ability in exposition and argumentation. On the institutional side of education, the schools were either controlled completely by the Church or, in many Protestant countries, by both State and Church; for even where the State exercised formal control, both the teaching and the direct supervision were chiefly in the hands of ecclesiastics.

SOME REFORMATION EDUCATORS. — As we have seen that it is impossible to distinguish between the Renaissance movement and the Reformation movement in all of north

Europe, so it is quite difficult also to differentiate the humanistic educators from the religious educators of the sixteenth century. From the fact that the new learning was given a reformatory bent, the north European humanists were collectively responsible for the Reformation movement. While many of them, such as Erasmus, Wimpfeling, More and Rabelais, among the more prominent, refused to break with the Church, and rejected the violent methods of the reformers, they could not dissociate themselves from this responsibility. This truth was put in a homely way by Luther, when he said that he but hatched the egg laid by Erasmus. To which Erasmus replied that the egg was but a hen's egg, while Luther had hatched a game cock. So, on the one hand, many of those prominent as humanistic educators, such as Sturm, are quite as good representatives of religious as of humanistic education; and, on the other hand, many of those usually considered as Reformation educators, such as Melanchthon, are quite as thoroughly humanistic as any mentioned in the previous chapter. This lack of definiteness in the delimitation exists in other groups as well. For example, Comenius, later taken as the chief representative of the sense realists, is quite as truly a leader in the educational movement of the Reformation as either Luther or Melanchthon. In other words, the religious aspect of the work of these educators is revealed in the purpose and organization of education, while the humanistic or realistic aspect appears in the content or subject-matter. Though but a few of them are here mentioned in detail, the Reformation and the counter-Reformation movements produced many great educators and leaders of educational thought. In fact, it was a consequence of the character of the later Renaissance movement that all the religious leaders seized upon education as the chief instrument for bringing about the reforms which they desired. On the Protestant side, the great leaders are naturally Luther and Melanchthon.

John Calvin (1509–1564) was occupied during the greater part of his life in religious and theological controversies. Only during his later years did he give especial attention to education. He then organized a college at Geneva, which was little more than a typical humanistic Latin school. Later, these schools became quite numerous throughout France among the Protestant communities. With the expulsion of the Huguenots, many schools of a similar type, under the patronage or influence of the French refugees, were established in Germany, as a type scarcely to be distinguished from the *Furstenschulen* previously mentioned (p. 389). Zwingli (1484–1532), the great Swiss reformer, fostered the humanistic learning, encouraged the formation of elementary schools, and wrote a treatise on "*The manner of instructing and bringing up boys in a Christian way*" (1524). John Knox (1505–1572), the leader of the Scotch Reformation, was the chief agent in the establishment of the parish school system of Scotland.

Martin Luther (1483–1546), the great protagonist of the Reformation, assumed the leadership of the educational movement that had already begun in Germany, even before the germs of the Renaissance ideas took root. This movement worked toward the deliverance of education, through the power of the State, from the trammels which by a gradual process through centuries had been forged for it by the Church; toward a wider dissemination of the opportunities for education; and toward a truer conception of the function of education in life, both religious and secular. All of these tendencies harmonized with Luther's beliefs, and the success of the Reformation necessitated at least a partial realization of them; yet all three had existed before the time of Luther. Beginning with the last mentioned, — that toward a broader view of the nature and function of education, — let us consider Luther's influence in connection with each of these tendencies

Luther's condemnation of the education given by monastic

and ecclesiastical schools was very harsh. While the burgher schools were now frequent in the larger cities, most of these, especially those of an elementary character, were wholly dominated by the teachers and the spirit of the Church schools. The smaller towns and villages were quite unprovided with any other kind. Against their narrow outlook, ascetic spirit, and harsh discipline, he writes thus: —

"Solomon was a right royal schoolmaster. He does not forbid children from mingling with the world, or from enjoying themselves, as the monks do their scholars; for they will thus become clods and blockheads, as Anselm likewise perceived. Said this one: 'a young man, thus hedged about, and cut off from society, is like a young tree, whose nature it is to grow and bear fruit, planted in a small and narrow pot.' For the monks have imprisoned the youth whom they have had in charge, as men put birds in dark cages, so that they could neither see nor converse with any one. But it is dangerous for youth to be thus alone, thus debarred from social intercourse. Wherefore, we ought to permit young people to see, and hear, and know what is taking place around them in the world, yet so that you hold them under discipline, and teach them self-respect. Your monkish strictness is never productive of any good fruit. It is an excellent thing for a young man to be frequently in the society of others; yet he must be honorably trained to adhere to the principles of integrity, and to virtue, and to shun the contamination of vice. This monkish tyranny is, moreover, an absolute injury to the young; for they stand in quite as much need of pleasure and recreation as of eating and drinking; their health, too, will be firmer and the more vigorous by this means."

This passage gives, not only his condemnation of the old, but his conception of the new. The purpose and scope of education are no longer to be dominated solely by religion and the Church.

"Were there neither soul, heaven, nor hell, it would be still necessary to have schools for the sake of affairs here below, as the history of the Greeks and the Romans plainly teaches

The world has need of educated men and women, to the end that the men may govern the country properly, and that the women may properly bring up their children, care for their domestics, and direct the affairs of their households."

Almost every variation of this conception of education as a training essential to the ordinary duties of life in the home, the occupation, the State and the Church receives emphasis in his writings or his sermons to the German people. Consequently, the family is looked upon as an educational institution not even secondary to the school. Education becomes something broader than the school. But the school itself is broader than that which then existed, and, it may be remarked, much broader than those established by his followers of the sixteenth and the seventeenth centuries. It is true that Latin and Greek constitute the bulk of the curriculum. To those languages he adds Hebrew, and also attempts to bring this linguistic education within the reach of all. But his curriculum is much more than linguistic. He adds the logic and mathematics demanded by the times, but lays a new emphasis on history, on science, as then conceived, and upon music. This latter provision indicates one of Luther's most important influences upon the German people, for music thus becomes a component part of the education of all. Gymnastics and physical education are given a place new to German thought.

The fundamental relation of the Reformation to universal education has been noticed previously. Luther quickly seized this important point and insisted upon it throughout his teachings. Schooling was to be brought to all the people, noble and common, rich and poor; it was to include both boys and girls — a remarkable advance; finally, the State was to use compulsion if necessary. In this connection the supplementary function of the school in education again comes to the fore. Luther advocated a school day of two hours, so arranged that it would allow the older children and youth to

carry on the ordinary economic duties of life uninterruptedly. "I by no means approve of those schools where a child was accustomed to pass twenty or thirty years in studying Donatus or Alexander, without learning anything. Another world has dawned, in which things go differently. My opinion is that we must send the boys to school one or two hours a day, and have them learn a trade at home for the rest of the time. It is desirable that these two occupations march side by side." It was further his opinion that the authorities were "bound to force their subjects to send their children to school," just as every subject was compelled to render military service and for much the same reason; namely, for the defense and the prosperity of the State.

Consequently, education should be state-supported and state-controlled.

"In view of all this, it becomes councilmen and magistrates to watch over youth with unremitting care and diligence. For since their city, in all its interests, life, honor, and possessions, is committed to their faithful keeping, they do not deal justly with their trust, before God and the world, unless they strive to their utmost, night and day, to promote the city's increase and prosperity, Now, a city's increase consists not alone in heaping up great treasure, in building solid walls or stately houses, or in multiplying artillery, and munitions of war; nay, where there is a great store of this, and yet fools with it, it is all the worse and all the greater loss for the city. But this is the best and the richest increase, prosperity and strength of the city, that it shall contain a great number of polished, learned, intelligent, honorable, and well-bred citizens; who, when they have become all this, may then get wealth and put it to a good use."

Therefore as a city is at a great expense each year for the construction of roads, the fortifying of ramparts, and the equipment of soldiers, why should it not support one or two schoolmasters? The outcome of Luther's influence in this respect was the building up of the system of schools of the Protestant states.

Luther's view of the importance of education is indicated, even summarized, by his appreciation of the work of the teachers.

"Where were your supply of preachers, jurists, and physicians, if the arts of grammar and rhetoric had no existence? These are the fountain out of which they all flow. I tell you, in a word, that a diligent, devoted school teacher, preceptor, or any person, no matter what is his title, who faithfully trains and teaches boys, can never receive an adequate reward, and no money is sufficient to pay the debt you owe him; so, too, said the pagan, Aristotle. Yet we treat them with contempt, as if they were of no account whatever; and, all the time, we profess to be Christians. For my part, if I were compelled to leave off preaching and to enter some other vocation, I know not an office that would please me better than that of schoolmaster, or teacher of boys. For I am convinced that, next to preaching, this is the most useful. and greatly the best labor in all the world, and, in fact, I am sometimes in doubt which of the positions is the more honorable. For you cannot teach an old dog new tricks, and it is hard to reform old sinners, but this is what by preaching we undertake to do, and our labor is often spent in vain; but it is easy to bend and to train young trees, though haply in the process some may be broken. My friend, nowhere on earth can you find a higher virtue than is displayed by the stranger, who takes your children and gives them a faithful training, — a labor which parents very seldom perform, even for their own offspring."

Thus Luther contributed materially to the formulation of a new and broader conception of education and gave powerful impetus to practical changes already initiated. The concrete work of carrying these into effect was left to his followers, chief among whom was Melanchthon.

Philip Melanchthon (1479–1560) has been given the title of *Preceptor of Germany*, for he was to Germany in educational reform what Luther was in religious reform. The educational suggestions which Luther urged upon the German people through his many appeals were formulated and

carried out by Melanchthon. The title was not given without good reason, for at his death there was scarcely a city in all Germany but had modified its schools according to Melanchthon's direct advice or after his general suggestions, and scarcely a school of any importance but numbered some pupil of his among its teachers. Wittenberg was the center from which radiated these influences, united as they were with those of Luther, for in the university there Melanchthon labored for the last forty-two years of his life. And it was in university circles that his educational reforms were first carried out. Through his influence the university was soon remodeled along humanistic and Protestant lines. Other universities of north Germany soon imitated these changes, and Wittenberg was the model of the many new universities of Germany, mentioned later (p. 417). To Wittenberg flocked students by the thousand, drawn by Melanchthon's great reputation; and from Wittenberg, in turn, were sent out teachers carrying Melanchthon's idea into all Germany. If a prince needed a professor for his university or a city a rector for its schools, Melanchthon was consulted and most naturally one from his pupils chosen. The most distinguished teachers of this period, such as Neander and Trotzendorf, were his pupils, or like Sturm dependent upon him for counsel. Not only through his pupils did he exercise leadership, but through his correspondence and visitation as well. His correspondence with fifty-six German cities regarding their schools is still in existence.[1]

Melanchthon often inaugurated these new schools in person. But his contact with the individual pupil was mainly through his many text-books. When sixteen years of age, he wrote the Greek grammar which later became almost universally the text for the German schools. His Latin grammar, written later, achieved a similar reputation. His texts on dialectic, rhetoric, ethics, physics, history, etc., were

[1] Hartfelder, *Melanchthonia Pädagogica.*

similarly useful in the lower schools, as his theology, the first of Protestant production, became the great text for Protestant universities and higher schools.

Through his formulation of the *Visitation Articles* of Saxony in 1528, drawn up at the request of the elector, he became the founder of the modern public school system. The scope of these higher schools was quite restricted, as will be seen from his summary. Among other things, he says: —

"There are now many abuses in the schools. In order that the young may be properly taught, we have prepared this form: first, the teachers should see to it that the children learn only Latin, not German, or Greek, or Hebrew, as some have hitherto done, burdening the children with a multiplicity of studies that were not only unfruitful, but even hurtful. It is also plain that such teachers do not consider the good of the children, but take up so many studies for the sake of reputation. Secondly, the teacher should not burden the children with too many books, and should, in every way, avoid multiplicity in his instruction. Thirdly, it is necessary that the children be divided into classes."

But these schools slightly expanded became the gymnasien, the central schools of the whole German system.

Melanchthon's pedagogical writings, consisting as they do chiefly of inaugural addresses or lectures to students on the value of the study of literature and philosophy, are of importance only as indicating the content and spirit of the humanistic education.

TYPES OF RELIGIOUS SCHOOLS. — The Reformation in its beginning was simply the Renaissance movement especially directed as it was toward the study of Biblical and patristic literature and consequently rather toward Greek and Hebrew than merely to Ciceronian Latin. Hence it was in north Europe that the humanistic centers became Reformation centers and the lower humanistic schools the basis of systems of religious schools, both of Protestant and Roman Catholic

sympathies. The remark previously made concerning the Jesuit schools is applicable for the most part to all of these schools, that in subject-matter all such schools are strictly, even narrowly, humanistic; while the purpose and spirit is almost wholly religious. The control of Protestant schools becomes vested nominally in the state, though the control remains practically religious; while the Roman Catholic schools are organized by the teaching orders or congregations.

The Universities. — The history of the universities of the German states during the sixteenth and seventeenth centuries is determined by the progress of the Protestant religion and is almost identical with the development of Protestant theology. Wittenberg, founded in 1502 as the first university of the new learning, became through the residence of Luther and Melanchthon the very center of Protestantism. The universities gradually threw off their allegiance to the pope and transferred it to the temporal princes. Since now their support was derived from the favor of these governments instead of from ecclesiastical sources, the control exerted by the princes became determinative, and many of them followed the occasional change in denominational adherence of the reigning families. To a considerable extent their support came from the dissolution of old monastic and ecclesiastical foundations. Marburg, founded in 1527, was the first of these Protestant universities, while Königsberg, Jena, Helmstadt, Dorpat, and a number of others were added within a century. Within this same period seven Roman Catholic universities were founded within the limits of the German states. Several during the same period grew out of gymnasien, as the one at Strasburg (1621) from Sturm's school, and the one at Altdorf (1578) from a famous institution at Nuremberg. Both of these were Protestant. While the work in many of these was of a high character, and the influence great, — Altdorf, for example, though very poor, is said to have contributed more to philosophical study than all of the universities of the

British empire, — yet, in general, by the seventeenth century the activities of these institutions degenerated into the lifeless formalism previously mentioned. A German historian remarks that the dominant theological interest "called into existence a dialectic scholasticism, which was in no way inferior to that of the most flourishing period of the Middle Ages, either in the greatness or minuteness of the careful and acute development of its scientific form, or in the full and accurate exhibition of its religious contents."

In England the connection between the Reformation and the universities followed a similar course. At Cambridge, where the Reformation centered, the movement began early in the period, under the leadership of Tyndale (c. 1484–1536) and Latimer (1485–1555). The dissolution of the monasteries and friaries which formed so important a part of Oxford and Cambridge occasioned considerable diminution in power and effectiveness, which was gradually offset by the founding of new colleges from the spoils of these dissolutions and by the founding of *regius* professorships. In various other ways the monarch and the national Church came to their support, but in time the degeneracy in the character of the work and the life was even more marked than in the German universities.

Protestant Control of the Humanistic Secondary Schools. — The movement toward the secularization of the Latin schools begun in the fifteenth century was completed by the Reformation movement in the sixteenth. This secularization consisted, not in purpose and in character of study, but in change in control. And even as regards control, while exerted by the state or by the princes, the dominant motive in all of their actions concerning schools was the religious one. The rectors of these schools as well as many of their teachers were Protestant leaders or ministers, while the dominant influence in the boards of control and visitation was always exercised by the representative of the Church. The new schools founded were

shaped by Melanchthon's "School Plan," which was thoroughly humanistic in the sense that Erasmus and Luther would approve; the purpose was chiefly civil and religious, rather than humanitarian in the broader sense. In content, little difference, if any, from the old schools can be discovered. Dominantly Latin, a little Greek and less mathematics were added. Since now these schools were based on a system of vernacular schools, no attention was here paid to the vernacular.

A more striking change was the organization of these schools into systems, through the coöperation of the state with the municipalities. The first distinctly Protestant gymnasium was that of Magdeburg, founded from the union of the old parochial schools in 1524. The following year Melanchthon drew up his plan of a gymnasium for the school of Eisleben, the birthplace of Luther. In 1528 the electorate of Saxony established the first general system of such schools. It provided for the founding of Latin schools on Melanchthon's plan in all the towns and villages of Saxony. The Duchy of Würtemberg followed in 1559 and the other German states later.

In England these secondary schools have not to this day been organized into a system. However, they soon passed under the control of the national Church. Even before the Reformation, Dean Colet, in founding St. Paul's, specified that the control should be in the hands of married laymen, the company of mercers. His reply to Erasmus as to the reason for this was that "there was no absolute certainty in human affairs; but, for his part, he found less corruption in such a body of citizens than in any other order or degree of mankind." The organization of these schools by Henry VIII and Edward VI was for the purpose of destroying the monastic and ecclesiastical control. Each was placed on a separate foundation, but most of them were so organized that the masters and fellows, the teaching and the controlling bodies, must be from the clergy of the Established Church. Thus

they have remained until the reforms of the nineteenth century.

The Teaching Congregations. — No more conclusive evidence can be cited of the effectiveness of the Protestant schools as a means of reforming social and ecclesiastical evils and of establishing the reformed churches, than the adoption of the same means by the Roman Catholic Church. In the sense that other purposes were more important and the educational efforts incidental, and also in the sense that the education provided was a preparation for entrance into the orders, the educational efforts of the old monastic orders were wholly subordinate. More important still, the old orders were hostile in their nature and spirit to the new ideas and methods. The teaching orders adopted these as improved upon by the Reformation schools, and exalted educational effort as their chief purpose. Until the early part of the nineteenth century these orders controlled secondary and higher education, and for the most part elementary education in the Roman Catholic countries of south Europe and of France, and were quite extensively represented in the Protestant countries of north Europe. The strongest and most important of these orders was that of the Jesuits.

The Schools of the Jesuit Order. — The Society of Jesus, organized in 1540, became the chief instrument of the counter-Reformation movement. Founded for the purpose of strengthening the authority of the papacy and extending the dominion of the Roman Catholic Church, it was directed both toward the conversion of the heathen and toward the combating of the Protestant heresies. It is in this latter phase of its activities that the order achieved its chief historical importance. The means adopted by the order for the accomplishment of its purposes were preaching, confession, and teaching. While the practical influence of the order and the peculiar part played by it in the history of the two centuries following the organization, were due quite as much to the two

former instrumentalities, we are here concerned with its educational activities alone. Hence all such questions as the character of its influences, the motives inspiring it, the permissibility of its methods, the interference of the order in political affairs, the justification of the suppression of the order, are aside from our interests, except in so far as the general purpose and character of the order determined its conception of education. Further, it is possible to consider the organization, content, method, and administration of its system of education without an intimate investigation of its spirit and purpose, which is something not to be gained from the study of plan and records or from the reading of books. It is possible to form a favorable judgment of the one without being in accord with the other. Certain it is that the schools which were the most successful educational institutions of two hundred years and educated very many of the learned men and leaders of Europe for that period, were not without great educational merit.

The Constitution of the Order, formulated in outline in 1540, was not perfected until 1558, after the death of its founder Loyola. The *constitution* consists of ten parts, the fourth one of which is the *Ratio Studiorum*, or *System of Studies*. This, however, was not perfected until much later, after repeated conferences by committees of the order. As it took its final shape in 1599, remaining unchanged until 1832, it embodied the experience of the order through more than half a century of teaching and experiment as well as a full consideration of the experience of others. For these men who formulated the *Ratio* were close students of the subject of education, at least on the practical side, and the order possessed the advantage of being able to give that continuous attention to the subject and that close observation and experimentation covering a wide scope of territory and a multitude of teachers and pupils, such as was possessed by no other single educator or group of educators. Since a fundamental

principle of the order was implicit obedience to authority and the *Ratio* when once formulated was an expression of that authority, we find here a scheme of education that was typical in a sense that no other schools were typical. Their function was to educate, not for their order alone, but to educate youth in general, and to provide them not only with religious education, but with the most advanced secular education of the times. So successfully did they do this that they drew students very largely from the Protestant communions as well.

The order had little interest in elementary education, and hence in the education of the masses; it was devoted to the education of leaders, and consequently was interested in higher education. Two classes of schools were established, *colleges inferior* and *colleges superior;* the former corresponding to the gymnasien and the latter to the universities and theological seminaries. It was the policy of the order to establish schools only when sufficient contribution had been made to insure the support and the success of the instruction. Since the members had devoted their lives to the advancement of the interest of their order and consequently to educational endeavor, the expense connected with the operation of these schools was comparatively small. Usually no tuition was charged, and in this respect they possessed an immense advantage over the corresponding Protestant and municipal schools. While in some few cases schools for the nobility were established, for the most part the schools of the order were conducted wholly upon the principle of merit and ability.

Extent of Influence. — By the second quarter of the seventeenth century the number of their colleges had increased to 372; by the opening of the eighteenth century to 612 colleges, 157 normal schools, 24 universities, and 200 missions. And at the time of the suppression of the order, after the middle of that century, the colleges of both grades numbered 728. The attendance upon many of the larger of these col-

leges was over 2000; the total attendance in the department of Paris was over 13,000; and in the various national colleges at Rome more than 2000. At the time of the suppression, the order numbered about 22,000 members, the majority of whom were devoted to the work of education.

ORGANIZATION. — One other cause of the great success of these schools is found in their completeness of organization and continuity of administration. What Sturm did in this respect for one school with such remarkable results, the Jesuits did for an entire system of schools with correspondingly wider results. At the head of the order stands the general, who is elected for life and, though he must associate with him prominent officers in advisory capacity, yet he has unlimited power. This insures a stability and a unity of action that has made of the order a power respected and feared, and on the educational side has produced a perfection of system unknown elsewhere in educational administration. The order is divided into administrative provinces, each presided over by a provincial responsible directly to the general. On the educational side are the rectors of the various colleges under the provincial, but appointed by the general. In turn, under the rectors, are the prefects of studies, the educational supervisors, who are appointed by the provincials. The teachers are directly supervised by both rector and prefect, and the latter must make frequent visits to each class. This constant supervision and the constant check exercised on one officer by another, as well as the preparatory training of all their teachers, prevents any departure from the established methods of government and instruction through any individuality of teachers and secures an adherence to the general system, once established, that makes for a definiteness of procedure and a certainty of results that is without parallel in schools of that or subsequent times.

This close supervision, amounting almost to repression on the one hand and espionage on the other, was also character-

istic of the government of the pupils in the schools. Divided up into groups under monitors and into pairs, so that each acted as a check upon the other, not only was order secured, but an obedience to and respect for absolute authority that resulted almost in an elimination of individuality. Notwithstanding these characteristics in the way of limitations, there were corresponding merits in the matter of educational government. Discipline was secured through this ever present evidence of authority and by dependence upon religious motive, so that the great abuse of corporal punishment, so characteristic of the time, was almost eliminated. Though sometimes resorted to for purposes of government, it never was used, as was ordinarily the case, as an educational incentive. In place of resorting to physical force, the Jesuit teachers elaborated in their characteristically thorough and practical way a system of rewards that made use of the motive of emulation to an extent never before employed.

Preparation of Teachers. — Yet another cause of the educational success of the order was due to the thoroughness of teaching in their schools, resulting from the careful preparation of picked teachers. The order itself is divided into four classes, the professed, coadjutors, scholastics, and novices. The novices are those who have been accepted for the order after a partial completion of the course of the *college inferior*. They must then complete this course and spend two years in religious preparation for the order. The scholastics complete the *college superior* and the theological course and spend some six years, usually before the theological course, in teaching the inferior course. Then the scholastic is admitted usually into the rank of coadjutor, where most of the order remain. Many of the *coadjutores spirituales* become the permanent teachers of the order. Such teachers must also receive the normal training of the order. Hence their teaching force is made up for the most part of those who have passed through the rigid course of the lower

and usually of the superior college, while the permanent teachers who direct the work of the student teachers are trained through a long university and normal career. Those best adapted to teaching are selected for this permanent service.

As the members to begin with are picked men, chosen usually on account of intellectual superiority, the order obtained a selected body of teachers far superior to those of the secular schools, or, in fact, any schools of the times. This superiority was maintained so long as there was no great change in the spirit and subject-matter of education. But when, with the eighteenth century, there came to be a decided movement away from the dominant theological spirit and the formal humanistic content of education, the Jesuit schools tended to lose much of their prestige and superiority, a tendency which culminated with the temporary suppression of the order. This suppression, however, was not due in any respect to the character of the work of the schools, unless it was that their success in the education that still controlled had produced strong opposition and distrust.

The Subject-matter of the Jesuit schools has already been referred to as of the characteristic humanistic order. In this respect they did not differ from the other schools of the time, either as to the scope of the material or the purpose to be achieved by its use. The same devotion to the study of form, beginning with grammar and terminating with dialectic, the same effort to give the use of the Ciceronian Latin as a living tongue, were to be found. Only the Jesuit schools were superior to the other types of schools in that they were one and all kept up to the high standard of the *Ratio*, while the greatest variation prevailed among the schools under secular control in regard to methods, to the scope and the selection of the subject-matter. More attention was given to mathematics and to the rudimentary sciences, so far as they could be gained through the classical texts, ordinarily

under the name of philosophy, than was usually the case with other schools. This was true, at least, so long as there was no departure from the ruling abstract theological education, such as is to be narrated in the following chapter.

In the *studia superiora*, or the higher colleges and universities, the full range of the university studies, including the sciences, philosophy, and the professional subjects of law and medicine, were to be found. The *studia inferiora*, or lower schools, were organized into six classes, — four devoted to the study of grammar, the fifth to "humanities," the sixth to rhetoric. In the fifth class the chief emphasis was on the content, and the histories were chiefly used. The *Ratio studiorum* took the attitude common to all the educators of these centuries, — that the classical languages and literatures were the adequate means to universal culture and effective service in society. And for the period when the *Ratio* was organized the assumption was correct.

Method of Jesuit Instruction. — The most distinctive feature of the Jesuit schools was found in their method. While the Jesuit teachers wrote many text-books and texts even yet used to a considerable extent, the characteristic method for all classes was the oral one. Herein lay one other explanation of their success, for it put the teacher and taught in such close personal contact that it gave to their schools a molding power beyond most others. Next to this personal interest and oral method was the principle of thoroughness underlying all their work. Each day's work for the lower classes was practically one recitation. And it was their rule announced even in the *Ratio*, that but three or four lines be given for the day's work for these lower classes. Then frequent reviews were given. Each day began with a review of the previous one; each week closed with a review; each year with a review of the year's work; and finally the student destined for the order reviewed the entire course by teaching it.

Each class was divided into groups presided over by decurions, to whom the boys recited under the general supervision of the master. Another division was into groups of two, the *rivals*, by which means each boy was to become a corrective and an incentive to his companion, and was to keep watch over his studies as well as over his conduct. A larger division of the classes was into groups for discussion concerning points of the lesson, grammatical, rhetorical, historical, etc. These discussions were called *concertations*. The brighter boys were organized into *academies*, where the concertation became fully developed dialectic discussions. Themes, essays, translations, discussions of classical subjects, all entered here. Membership in these was wholly voluntary and was one of the forms of reward for merit.

The formal conduct of the recitation by the teacher was termed the *prelection*, a modified lecture form. In the prelection, the first step was to give the general meaning of the entire passage; secondly, the meaning and construction of each clause was thoroughly explained; thirdly, under the term *erudition* such information, historical, geographical, archæological, as related to the passage was presented; fourthly, the explanation of rhetorical and poetical forms with the rules were considered; fifthly, a comparative study of the Latinity was made; and, finally, moral lessons were drawn. Under the third was introduced almost all of the subordinate historical, geographical, and scientific study that found place in the lower schools.

Their entire work was based upon the principle that it is much better to give a small amount in a thorough manner than to give a rather indefinite impression or partial mastery of a quantity. Hence no single word was left without thorough explanation; and while their education was not broad, from the modern point of view at least, it was very thorough and very effective. The fact that each master in his method had back of him the universal custom as well as the training of the

order gave dignity as well as prestige and authority to the work of the school; for it gave confidence to the master and strengthened the receptive attitude and the enthusiasm of the student.

Defects and Decline. — After this review of the exceptional excellence of the organization and method of these schools, and of the usual humanistic curriculum, some explanation must be given of the extreme hostility aroused by these schools among the Protestants, of the opposition of the Roman Catholic Church that occasioned the temporary suppression of the order, and finally of the fact that their importance lies almost wholly in the past and that they do not have the success or the prominence now that they once had. To a large extent this hostility was due, as was also the suppression of the order, to the political activities of the order and consequently to the opposition of various governments. The chief explanation is not far to seek: it is found in the application of the fundamental principle of the order, that all is to be done for the greater glory of God (A.M.D.G. as it passed into the usual formula of the order, that is, *ad majorem Dei gloriam*), as that was secured through advancing the interests of the Church. In its application this means the complete subjection of the individual member to the order, and of the order and of all whom it educated or could influence to the Church. Once more in principle as well as in practice the individual is to disappear completely before the institution. Irrespective of the attitude which one now takes toward such a principle, the thing to be noticed and the thing frankly avowed by the order in its work, as it was expressed in the vows of the members, is that their educational scheme was directed toward this end, — the complete subjection of the individual. The end which every member of the order was bound to hold constantly in view in all his work was the triumph of the Church over every hostile force through the unquestioned obedience of every member and of

every individual to that authority however expressed. Herein was a complete negation of the principle developed by the Renaissance. As Macaulay observes, "the Jesuits seemed to have found the point up to which intellectual development could be carried without reaching intellectual independence." It does not change the character of the spirit and purpose of such a school of education that on the content side it was thoroughly humanistic. That material was so used and such methods were employed that the results desired were certain.

We have previously seen that the results were not far different with the Protestant education of the sixteenth and seventeenth centuries. The abstract theological education of the times, whether Protestant or Jesuit, was an exaltation of authority and a subordination of the individual. This, with the Protestant denominations, was in opposition to the very principle that had given birth to the Reformation movement, and hence by the eighteenth century a reaction toward the true individualistic principle — in part a reaction far beyond the original Renaissance form — occurred: while with the Jesuit education, both practice and principle were in opposition to the new ideals of the Renaissance period that were later to enter into the critical, the philosophical, and finally the scientific advance. Their very method, perfect as it was in its way, inhibited all initiative, and prevented the development of all spontaneity and of all freedom of opinion. Hence the opposition and the subsequent decline, despite the fact that during the first century or so of their existence, in both subject-matter and method, they were ahead of all rivals.

The fact that the Roman Catholic Church, and especially the Jesuit order, seized upon the method adopted by the Protestant bodies for the furthering of their beliefs, — that is education through schools, — resulted in the advancement of the importance and the influence of schools far beyond what they had ever possessed before.

The Oratory of Jesus was a teaching order founded originally

in Italy in 1558 but independently in France in 1611. The importance of the order as a teaching organization is for the most part confined to the latter country, where, after the expulsion of the Jesuits, they came into general control of secondary education. Later they themselves were suppressed, to be refounded in 1852, to meet a similar fate later. The schools were largely devoted to the training of the parochial priesthood. In spirit and educational work, the Oratorians were much less harsh and rigid, and devoted more time to the vernacular and scientific studies as well as to history and philosophy than did the Jesuits. So much more liberal were they in their views and in their cultivation of individualism, that they fell under the suspicion of the Jansenism of the Port Royalists. Hence in many respects their educational influence and work occupied a middle ground between that of the Jesuits and that of the Jansenists.

The Port Royal Schools. — The schools of this order attained their importance not from their number or from the length of time that they existed, for they were few and had a career of but a scant twenty-four years (1637–1661), but from their influence and from the fact that they represented both in their conception of education and in their method a reaction against the dominant Jesuit education. Their influence was wholly confined to France, and was exerted chiefly through the writings of the members of the order and through their insistence upon some principles that were far in advance of the practice of the times. Combined with these, however, were other principles that, while characteristic of much of the religious education of that and succeeding times, were wholly opposed to modern educational thought.

Founded by Duvergier de Hauranne (1581–1643), better known as St. Cyran from the abbey over which he presided, the work of the schools and the spread of their educational doctrines were due rather to Nicole (1625–1695), Lancelot (1615–1695), Arnauld (1612–1694), Coustel (1621–1704),

Rollin (1661–1741), and others, all of whom wrote educational treatises widely circulated. To these should be added as representatives of these schools two of their most renowned pupils, La Fontaine (1621–1695) and Pascal (1623–1662), to whose *Provincial Letters* we owe much of the publicity given to the work of this order and our knowledge of the ground of the popular oppositions to the Jesuit education of that period.

The members of the order were termed Port Royalists from the convent where first the girls were trained and to which, later, when vacated, St. Cyran moved with his solitaries. The term *little schools* was adopted to avoid any appearance of opposition to the university, which had been extremely jealous of the educational work of the Jesuits, and to indicate a characteristic practice, that of confining the work of the schools to a few picked children who could be influenced and shaped through close personal contact with the teacher. Individual care of the pupil by the teacher was one of their distinguishing marks, though this was carried to such an extreme that the child was never left free to himself but must be every hour of his childhood under the personal charge of his teacher. This practice grew out of their fundamental belief that the purpose of education was to shape the moral and religious character of the child; to mold his will by surrounding him with good influences. The prevailing religious conception in education, that the child's nature was wholly evil and that the work of education was to eradicate this evil and replace it with a true religious spirit, they carried to an extreme. This led to the adoption of some methods of work that were far more restrictive and harsh than those used by the Jesuit order. On the other hand, the motive of their work as enunciated, probably for the first time, in all of their writings and shown in their work, was that of the love of the child. This same view which led to so narrow a conception of education and so restric-

tive a discipline, on the other hand led to a better conception of subject-matter and method of education. Herein lies their practical importance in the development of French education. They enunciated the principle that children should be compelled to study only that which they could understand, and that consequently their education should begin with the vernacular instead of with Latin. They discarded the alphabetical method of teaching to read and to spell, and invented a phonic method. After the vernacular was mastered the child was introduced to classical literature through translations. When Latin was begun, it was taught through a minimum of grammar and chiefly through translation into the vernacular, then through reading of wide selections from the classics. The moral training through the use of the subject-matter was to come from literature instead of from language. Hence there resulted the great influence of this small group of men on the development of French literature. These educators also favored the use of mathematics. In all of these subjects they produced the most serviceable texts. Literature, history, mathematics, were to be used on account of their content value, but only so far as they could be used in shaping character. Their thought was to lay the foundations of all schooling in a thorough mastery of the beginnings, but to make that mastery as attractive as possible to the pupil, by emphasizing content rather than form, by building on the understanding rather than the memory, and by a greater use of the senses than had been the custom previously. These advanced principles came out more clearly in their educational writings than in their school work. The latter can be judged best by the products of their brief career.

As the Jesuits had made a great advance in the substitution of emulation instead of compulsion or fear of physical violence as a motive to study, the Port Royalists went a step farther in wholly rejecting emulation in favor of piety and love upon

the part of the child and affection and religious zeal on the part of the teacher. It is true that all religious schools depended to a considerable degree upon these motives. Yet owing to the complete elimination of the spirit of rivalry from the Port Royal Schools, the difference in spirit from the schools of the Jesuits was very great. Nevertheless, the former did admit that the pupils were often indifferent. On the other hand, the gain in method and content values was somewhat counterbalanced by the rigid asceticism and formalism in behavior enforced upon little children.

Elementary Schools in Protestant Countries. — We have previously seen that the chief practical outgrowth of the Reformation was in the establishment of a system of schools controlled and partly supported by the State, founded on the principle that it was the duty of the family, the Church, and especially the State to see that every child attended these schools and received at least an elementary education.

The Public School System of the German States was the first of the modern type. In 1524 the city of Magdeburg established its schools on the plan advised by Luther. Four years later the elector of Saxony adopted a plan for Latin schools for the entire electorate, based upon recommendations of Melanchthon. Not until 1559 do we find a system of schools providing for all the people. In that year the Duke of Würtemberg adopted a plan, though it was not approved by the State until 1565. This system, an extension of the Saxony plan, provided for elementary vernacular schools in every village, in which reading, writing, religion, and sacred music were to be taught. The Latin schools in every town and city were expanded into six classes, instead of the three of Melanchthon's original plan for Saxony. Above these were the cloisteral or higher Latin schools, which were later incorporated with the lower Latin schools into the gymnasien. Above these was the university (Tübingen). In 1580 the Saxony plan was revised so as to incorporate the elementary

vernacular schools of the Würtemberg system. This code, borrowed almost word for word from the Würtemberg plan, remained without substantial revision until 1773. In 1724 it had been provided that girls as well as boys should attend. In 1773 the compulsory provision extending from the fifth to the fourteenth year was made effective and the scope of



A Typical Sixteenth-century School.

the curriculum broadened. Meanwhile, during the early seventeenth century, Weimar, Hesse-Darmstadt, Mecklenburg, Holstein, and others of the German states adopted systems that in some respects were in advance of the Würtemberg and Saxony plans. The first time that the principle of compulsory education for children of all classes was adopted by any state was by Weimar in 1619. It provided that all children, girls as well as boys, should be kept in school from

the sixth to the twelfth year. In 1642 Duke Ernst the Pious of Gotha, who more than any other ruler deserves the credit for the founding of the modern system of German schools, adopted a comprehensive regulation for the schools of the duchy which was in principle and in many details substantially the system of the German states at the present time. Attendance from the fifth year was required of every boy and girl in the province. The school year was to be ten months in length and the children were compelled to attend every day. The school day was to be from nine to twelve and from one to four every day in the week, except that Wednesday and Saturday afternoons were free. Parents were to be fined for non-attendance of children. The subjects of instruction were those of the Würtemberg plan with the addition of arithmetic. The grading of the schools, the details of the subjects of study, and the methods of instruction were all provided for in the general law.

The Thirty Years' War (1618–1648) had disastrous influence upon the development of the school systems of all the German states and it was not until the eighteenth century that school affairs began to make continuous and rapid progress. During that century the Prussian school system developed, though founded in 1648, and rapidly forged to the front in all educational matters. By this time, however, it was political rather than religious consideration that was determinative in the control of the schools.

No other people have even approximated the achievements of the German states in these respects. Until late into the nineteenth century England left all educational effort either to the family or to the Church, through special institutions of the great public schools, or through special societies, such as the Society for the Promoting Christian Knowledge (founded 1699), or the British and Foreign School Society (founded 1805), the National Society (1811), and the Home and Colonial Infant School Society (1836).

In Scotland the early Reformation period witnessed many efforts toward the establishment of schools under the influence of the Church; but it was not until 1696 that an effective system was established through the coöperation of Church and State. At that time an act was passed requiring the landholders of each parish to provide a schoolhouse and to support a schoolmaster. In case the landholders did not do this, the presbytery was authorized to apply to the commissioners of the shire, who were then to secure the enforcement of the act. There was no uniformity required among these schools, but the control of the teacher and the supervision of the schools were largely in the hands of the Church. Many of those schools offered secondary instruction as well as elementary, and sent boys directly to the university. Consequently the Scottish people had much better educational facilities and reached a higher common standard of intelligence than any other portion of the British Empire. No changes of any importance were made in the system until the opening year of the nineteenth century, when provisions were made for more than one school in the larger parishes, and for changing the power of selection of teachers from the Church to the taxpayers. From this time on a system of education adequate for towns as well as rural regions gradually grew up.

In Holland a system of elementary schools was established under the auspices of the reformed churches. Notwithstanding the cruelly oppressive Spanish wars of the sixteenth century, the synods of the Dutch Reformed Church made provision for the education of the youth. But it was not until the Synod of Dort (1618) that the Church undertook, in connection with the State, the establishment of a system of elementary schools in every parish. This system was as efficient as the chaotic condition of the times would permit, and was the origin of the earliest schools in the American colonies, for the Church-state of Holland required that the

respective trading companies should provide schools and churches for every one of their settlements.

In America the earliest systems of schools, however, were in the Puritan colonies in New England, and were there as well direct outgrowths of the Reformation spirit. The first general law providing for schools was passed in 1647 by the Massachusetts Bay Colony. The oft-quoted preamble to that law indicates the dominant motive. "It being one chief project of that old deluder, Satan, to keep men from the knowledge of the Scriptures, as, in former times, keeping them in an unknown tongue, so in these later times, by persuading them from the use of tongues; so that at last the true sense and meaning of the original might be clouded and corrupted with false glosses of deceivers; and to the end that learning may not be buried in the graves of our forefathers, in Church and Commonwealth, the Lord assisting our endeavors;" it was therefore ordered that an elementary school should be established in every town of fifty families, and a Latin school in every town of one hundred families. In 1650 the Connecticut Colony passed a law of similar import.

Elementary Education in Roman Catholic Countries.— The Christian Brothers performed for elementary education, at least in France and to a less degree in other Roman Catholic communities, the same service which the Jesuits did for secondary education.

The Institute of the Brethren of the Christian Schools was founded in 1684 by Jean Baptiste de la Salle (1651–1719), and sanctioned by the Papacy in 1724. By the time of the founder's death, the institute numbered 27 houses and 274 brothers; by the opening of the Revolution 122 houses and 800 brothers. The spread of the institute until it was established in almost every land, Protestant and Catholic, was the work of the nineteenth century. These educational ideas and methods are set forth in *The Conduct of Schools* first issued in 1720. The same exactness of detail, of repres-

sion of variation and of uniformity throughout the system that characterized the Jesuit *Ratio* is also found here.

The conception of education as well as the control exercised is thoroughly religious. Both in the control of the order and in the conduct of schools the spirit of asceticism is very marked. The most emphasized rule of the schools for both pupils and teachers was that of keeping *silence*. The teacher is almost forbidden to speak at all. Fewest possible words were to be used by both teacher and pupil.

Punishment was to be used instead of reprimand, signals instead of commands, written work was emphasized, and so far as possible restrictive and repressive measures were to be brought to bear upon the child. Contrary to the practice of the Jesuit schools, and subject to the regulation of the order and with the official instruments, corporal punishment was resorted to very freely.

The subjects of study in the schools were the ordinary elementary curriculum: reading, writing, arithmetic, and religious instruction. Although elementary study of Latin was also provided for higher grades, instruction was to be primarily in the vernacular. Tuition provided by these schools was given gratuitously, and in this respect as well as in the dominant purpose they resemble the schools of the religious associations of England, previously mentioned. However narrow and repressive the spirit of the schools and the character of the method when compared with the freer spirit of the Protestant elementary schools, the scheme of the order was far superior in two respects, in which they made the first general approach to modern standards. These were the training of the teachers and the grading and method of instruction.

One of the greatest defects of the times, especially of the elementary schools, due partly to taking the conduct of the schools from the immediate control of the Church and partly to the unsettled social condition of the times, was the very

inferior character of the teaching body. No longer now drawn from the clergy, with at least some education and no other distracting interests, the teachers in the elementary schools were largely made up of church sextons, disabled soldiers, village cobblers, or various persons whose chief occupations were either sedentary or lasting for part of the year only. As early as 1685 the Christian Brethren opened what was probably the first institution for the training of elementary teachers. All the members of the order were to be professionally trained for their work. In other of their normal schools, founded later, primary schools for practice teaching were incorporated. The excellent example thus given waited long for any general imitation.

The improvement made in the method of instruction was in the substitution of a simultaneous or class method of recitation for the prevailing individual method. Usually, each child was instructed by most laborious methods in the alphabet, simple words, elementary reading and writing, and rudiments of all the elementary branches. Even in the Jesuits' schools, while the classes were divided into groups under decurions for general discussion, each student finally recited in person to the master. In some of the German gymnasien a plan similar to the monitorial system later developed in England was adopted. The very familiar plan of class recitation, as a systematic method, the essential feature of all modern schools, was first brought into general use by the Brethren of the Institute. This as a matter of necessity required a more careful grading of the schools than the previous one based upon classification of subject-matter only.

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TOPICS FOR FURTHER INVESTIGATION

1. In the educational or other writings of Erasmus, Melanchthon, or any other writer of this period, what elements are humanistic and what religious and reformatory?

2. In the writings of Luther, what place is given or what emphasis placed on the right of individual judgment in the use of reason?

3. From the writings of Melanchthon, Luther, or any writer of Reformation period, what tendencies to formalism are discoverable?

4. Describe the method, the curriculum, or the organization of any one noted Protestant school.

5. What influences, as shown by concrete evidence, were exerted by Melanchthon on Protestant schools? by Sturm?

6. Give a more complete analysis of Luther's educational views.

7. Summarize the arguments of Paulsen (*Geschichte des Gelehrten Unterrichts*) or Mertz (*Das Schulwesen der Deutschen Reformation*), concerning the effects of the Reformation upon universities.

8. What were the educational ideas and activities of Calvin? of Zwingli? of John Knox?

9. Trace the beginnings of the public school system in Germany and its connection with the Reformation movement.

10. What relation did the Reformation have to the beginnings of public school education in any other Protestant country?

11. What were the merits and defects of either method, curriculum, organization, or purpose of the Jesuit education as shown by a detailed study of its schools?

12. Of the Port Royalists?

13. Of the schools of the Christian Brethren?

14. Give an estimate of the character and value of the educational writings of the Port Royalists.

15. To what extent were the early schools in America due to Reformation influences?

16. Through what sources, English, Dutch, German, etc., did these influences come?

17. What influence did the English Reformation movement have upon schools? (See Leach, *Schools of England at the Time of the Reformation*, etc.)

18. What place should be given to religious exercises and the study of religious material in the modern public school system?

19. What is the practice of European schools concerning the use of religious material in the schools?

20. What is the legal status of the use of the Bible and of religious instruction in the schools of the United States?

21. What are the arguments of these religious sects which believe that education should yet be controlled by the Church?

22. To what extent are they valid?

23. To what extent should the religious element enter into the ideal and the process of education?

CHAPTER VIII

REALISTIC EDUCATION

WHAT IS REALISM? — Though not usually included within the Renaissance period, realism represents but a later and higher stage of that movement. As the Renaissance in the fifteenth century revealed itself primarily in ideas of individual attainment and effort after personal culture, and hence became chiefly literary and æsthetic; so the same movement in the sixteenth century became primarily moral, reformatory, and hence chiefly religious and political or social. In the seventeenth century, through a yet further development of the same spirit and of the same forces, the Renaissance became impersonal, non-social, and directed toward a new determination of reality. Hence it became philosophical and scientific. Modern science, which received its first formulation in the seventeenth century and began to modify educational ideas and practices in these tendencies collectively called realism, is the full product of the Renaissance revolution in thought. This tendency only begins to work itself out during the seventeenth century. It has been well said that the movement of Greek thought began with investigation of and speculation concerning natural phenomena and developed into a purely subjective study of man; whereas the Renaissance movement, since stimulated by the rediscovery of Greek thought beginning with its highest product, reversed the process and began among the early humanists of Italy with this subjective study and developed toward the study of natural phenomena and the formulation of science. In this sense the realism of the seventeenth century is but an earnest

of the science of the nineteenth, educationally as well as philo sophically.

Within the limits of educational realism a somewhat wider compass of thought than that relating to the natural sciences is included. On the one hand realism reached back to its earlier connection with humanism, where it existed largely as a protest against the narrowing tendencies of the new learning as soon as it became institutionalized; and on the other hand it reached forward and outward as it shaped a working conception of a practical education, accepted by many people for many generations without the basis of any philosophy or the authority of any schools. This is the type to which the term "social-realism" is here given. These phases of realism were forerunners of the early scientific realism and combined with it in varying degrees in the formulation of the various types of educational thought characteristic of the eighteenth and nineteenth centuries. Each possessed many devotees and at least a few expositors. A few of these we shall notice in order to understand the details of these movements of thought. In the case of the more scientific movement, termed "sense-realism," the educators here considered performed a vital part in the development of thought and in the shaping of practice. Those considered under the two earlier aspects are expositors of views widely accepted and practices widely current, rather than formulators of the new.

HUMANISTIC-REALISM. The Concept of Education.— Humanistic-realism is the reproduction during the sixteenth and seventeenth centuries of a view of education characteristic of the earlier Renaissance period, now representing a protest against the dominant education of the narrow humanistic type. The humanistic-realists and the narrow classical humanists agreed in looking upon the classical languages and literature as the sole object of study, or at least the sole means to an education. With both groups, these languages

and literature made up the school curriculum. To both, these represented the highest achievement of the human mind and contained not only the widest product of human intelligence, but practically all that was worthy of man's attention. Yet there existed a fundamental difference in their purpose of study. We have previously considered the purpose and the spirit of the study of the narrow classicists; an object wholly contained in the linguistic and literary studies; a purpose fully attained with a mastery in writing and in speech of the Ciceronian Latin. Their object was to form young Romans, to produce a newer Latium. The object of the humanistic-realist, on the contrary, was to attain to a knowledge of human motives, of human life in institutions, of life in contact with nature. But to them the realities of nature were more completely mastered, the realities of institutional life were more truly appreciated by the Greeks and Romans than by their contemporaries or by any intervening generation. Consequently the fullest expression of the opportunities, duties, and interests of life was to be found in the classics. Not only were they "in adversity consolatory, in prosperity pleasing and honorable," but without them one would "be deprived of all the grace of life and all the polish of social intercourse." Not only did ancient philosophy contain the true philosophy of this life, but languages were the key to the real understanding of the Christian religion. Not only did mastery of these languages give power of speech, and hence influence over one's fellows; but if military science was to be studied, it could in no place be better searched for than in Cæsar and in Xenophon; was agriculture to be practiced, no better guide was to be found than Virgil or Columella; was architecture to be mastered, no better way existed than through Vitruvius; was geography to be considered, it must be through Mela or Solinus; was medicine to be understood, no better means than Celsus existed; was natural history to be appreciated, there was no more adequate

source of information than Pliny and Seneca. Aristotle furnished the basis of all the sciences, Plato of all philosophy, Cicero of all institutional life, and the Church Fathers and the Scriptures of all religion.

The purpose of the humanistic-realist was to master his own environing life, natural and social, through a knowledge of the broader life of the ancients; but both could be gained only through a mastery of the literature of the Greeks and Romans. Mastery of form was important only so far as it was a key to reality as they appreciated it. Study itself was not all of education. Physical, moral, social development formed component parts. The formal routine of linguistic discipline gave way to a broad and appreciative study of literature. It might even be necessary to resort to the practical study of life around one, but after all only for the purpose of a clear understanding of the text itself. For, when understood, literature was a safer and a more comprehensive guide to life than a direct study of that life.

Representative Humanistic-realists. — Since this view was developed in opposition to the narrow humanism, it represented a somewhat later stage than that of the Renaissance leaders.

Erasmus, who lived to see and to combat this restrictive tendency, gives one of the clearest presentations of the position of the humanistic-realist in his *System of Studies*.

"Knowledge seems to be of two kinds, that of things and that of words. That of words comes first, that of things is the more important. But some, while they 'are hastening to marry a beardless spouse,' as the saying is, in learning things, overlook a care for words and ill-advisedly trying to save time fall into the greatest waste. For indeed since things are not recognized save by means of signs of the voice, one who is not versed in the power of speech, also blindly gropes about here and there in the judgment of things; thus he is misled and necessarily makes mistakes. Finally you may see that none are more apt to quibble at little turns of speech

than those who make the boast that they overlook the words in considering the thing itself. Wherefore in each class the best ought to be learned at once and also from the best masters. For what is more foolish than with great pains to learn something which afterward you will be compelled with greater pains to unlearn. Nothing moreover is more easily learned than that which is right and true. But bad things, if once they stick in the mind, it is wonderful to tell, how hardly they can be torn out. So then grammar claims first place and should be taught to youth in both Greek and Latin. . . . Having acquired the ability to speak, if not volubly, certainly with correctness, next the mind must be directed to the knowledge of things. For although from these very authors, whom we have read for the sake of improving our language, incidentally, in no small degree is a knowledge of things gathered, still from the very first principles almost the whole knowledge of things is to be sought from the Greek authors."

Erasmus, however, is too broad to be classified by views expressed in this one writing. The representative humanistic-realists are of at least a generation or even a century later.

Rabelais (1483–1553) is the better exponent of this view and the one most usually taken. The educational importance of Rabelais comes, not from any immediate and concrete influence on schools, but from the influence his ideas exerted upon Montaigne, Locke, and Rousseau.

A monk, though expelled from one order and in constant hostility with the Dominicans to whom he later belonged; a *curé*, though in open hostility to the Church for the most of his life; a physician, though a scorner of false scientific ideas and practices of the times; a university man and scholar, though a trenchant satirist on the humanistic tendencies and the learning of his time, Rabelais's great work consisted in combating the formal, insincere, shallow life of the period, whether in State or Church or school. This satire, couched in most violent and exaggerated form, yet contains the truth of most of the reformatory aspirations of the sixteenth century.

Consequently, the dominant education of words, instead of realities, — realities of life, not necessarily of the senses, — meets his most forceful condemnation. In place of the old linguistic and formal literary education he advocates one including social, moral, religious, and physical elements; one that will lead to freedom of thought and of action instead of the complacent dependence on authority, whether of Schoolmen, classicists, or Church. His training in medicine led him to give unusual emphasis to the developing sciences. It is true, according to his views, that almost all of education was to be gained through books; but it was through mastery of their contents and for practical service in life. Studies were to be made pleasant; games and sports were to be used for this purpose as well as for their usefulness in the physical development of the child and for their practical bearing on his duties later in life; attractive rather than compulsory means were favored. In the closing part of a letter from the giant Garguantua to his son, the hero of the satire, concerning his education, the entire scope of his teachings can be given.

"I intend, and will have it so, that thou learn the languages perfectly. First of all, the Greek, as Quintilian will have it; secondly, the Latin; and then the Hebrew, for the holy Scripture's sake. And then the Chaldee and Arabic likewise. And that thou frame thy style in Greek, in imitation of Plato; and for the Latin, after Cicero. Let there be no history which thou shalt not have ready in thy memory; and to help thee therein, the books of cosmography will be very conducible. Of the liberal arts of geometry, arithmetic, and music, I gave thee some taste when thou wert yet little, and not above five or six years old; proceed further in them and learn the remainder if thou canst. As for astronomy, study all the rules thereof; let pass nevertheless the divining and judicial astrology, and the art of Lullius, as being nothing else but plain cheats and vanities. As for the civil law, of that I would have thee to know the texts by heart, and then to compare them with philosophy.

"Now in matter of the knowledge of the works of nature,

I would have thee to study that exactly; so that there be no sea, river, or fountain, of which thou dost not know the fishes, all the fowls of the air; all the several kinds of shrubs and trees, whether in forest or orchard; all the sorts of herbs and flowers that grow upon the ground; all the various metals that are hid within the bowels of the earth; together with all the diversity of precious stones that are to be seen in the Orient and south parts of the world; let nothing of all these be hidden from thee. Then fail not most carefully to peruse the books of the great Arabian and Latin physicians; not despising the Talmudists and Cabalists; and by frequent anatomies get thee the perfect knowledge of the microcosm, which is man. And at some hours of the day apply thy mind to the study of the holy Scriptures: first in Greek, the New Testament with the Epistles of the Apostles; and then the Old Testament, in Hebrew. In brief, let me see thee an abyss and bottomless pit of knowledge: for from henceforward, as thou growest great and becomest a man, thou must part from this tranquillity and rest of study; thou must learn chivalry, warfare, and the exercise of the field, the better thereby to defend our house and our friends and to succour and protect them at all their needs against the invasion and assaults of evil-doers. Furthermore I will that very shortly thou try how much thou hast profited, which thou canst not better do than by maintaining publicly theses and conclusions in all arts, against all persons whatsoever, and by haunting the company of learned men, both at Paris and otherwhere."

To this elaborate analysis of the humanistic-realist conception, Rabelais adds an exposition of the physical, social, moral, and religious elements in education in the best Renaissance spirit. In regard to his educational views, though quite at variance with the remainder of his writings and with his reputation, Rabelais is to be classed with those early humanists who sought to reëstablish the broadest conception of the liberal education.

John Milton (1608–1674), the poet, published in 1644 a brief *Tractate on Education* which remains one of the best expressions of the views of the humanistic-realists. His ob-

jections to the dominant education were, first, against the methods of approaching the subject through formal grammar and no less formal exercises in composition; secondly, granting that this evil should be removed, a greater one existed in the custom of directing the entire attention of the student to the mastery of the formal side of the language, without any attention to the literary or content side. Again, granting an improvement in this respect, a final objection was that all of education was not contained in the languages and literature of the Greeks and Romans.

Milton's view of the purpose and nature of education is concisely given in a brief paragraph: —

"The end of learning," he says, "is to repair the ruins of our first parents by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him, as we may the nearest by possessing our souls of true virtue, which being united to the heavenly grace of faith makes up the highest perfection. But because our understanding cannot in this body found itself but on sensible things, nor arrive so clearly to the knowledge of God and things invisible, as by orderly conning over the visible and inferior creature, the same method is necessarily to be followed in all discreet teaching. And seeing every nation affords not experience and tradition enough for all kind of learning, therefore, we are chiefly taught the languages of those people who have at any time been most industrious after wisdom; so that language is but the instrument conveying to us things useful to be known. And though a linguist should pride himself to have all the tongues that Babel cleft the world into, yet, if he have not studied the solid things in them as well as the words and lexicons, he were nothing so much to be esteemed a learned man, as any yeoman or tradesman competently wise in his mother dialect only."

The final purpose of education is given by the dominant religious motives of the time; the content represents the broader humanistic conception of the great poet; but the

purpose and method of the use of that content is the realistic one.

There follows a truly marvelous analysis of the work of the school that is to provide for the boy's education from twelve to twenty-one. For the first year the boy is to receive the usual training in Latin grammar, together with arithmetic, geometry, and moral training. Then follows the study of agriculture through Cato, Columella, Varro; of physiology, through Aristotle and Theophrastus; of architecture through Vitruvius; of natural philosophy through Seneca and Pliny: of geography through Mela and Solinus; of medicine through Celsus. This study of the natural and mathematical sciences is to be supplemented by reading the poets who treated of cognate subjects. This list included such as Orpheus, Hesiod, Theocritus, Aratus, Nicander, Oppian, Dionysius, Lucretius, Manilius, Virgil, and others. Thus the Greek and Latin languages were to be learned wholly incidentally to the mastery of the content of the literature. In the following stages, ethics, economics, politics, history, theology, Church history, logic, rhetoric, composition, oratory, were to be mastered through the appropriate authors. In this manner, the political orations and treatises, the tragedies, the histories, the poetry of the Greeks and Romans were given place in this capacious programme. And not in the Greek and Latin only, for all of this necessitated the command of Hebrew, Chaldee, Syriac, and Italian acquired "at any odd hour." The prodigious scope of school work which Rabelais suggested in jest or for the race was incorporated by Milton into the programme of a school.

The first comment that arises is that of the impossibility of accomplishment, except, as has been suggested, to a college of Miltons. Beyond this, the plan has the limitation of the humanistic-realist view; it is an education of information, and that gained from books; an education in which both information and books are overvalued. Yet on the other hand, since it

places substance before form, thought above words, practical efficiency in life above showy accomplishments, it is a much broader view than the dominant, formal, linguistic one.

In the organization and arrangement of the school, as well as in the content and method of its work as further described by Milton, there entered much of the rigidity that came rather from his Puritan sympathies than from any relation which such views might have with the realistic tendency. One permanent contribution made by Milton to education is found in the notable definition which he formulated. While the form is that of the seventeenth century, the spirit is that of all times. "I call therefore," he says, "a complete and generous Education that which fits a man to perform, justly, skillfully, and magnanimously all the offices both private and public of Peace and War."

The Effect of Humanistic-realism on School Work is necessarily a thing which cannot be estimated or traced. It was not characterized by any great external difference from the dominant humanism either in content or method; certainly not by any difference in organization or administration. Its direct influence on schools was only that exerted by individual teachers and individual programmes. Rare teachers and infrequent schools kept alive these traditions; but the dominant classicism overshadowed all other tendencies in school work. Naturally, since with the higher stages the formal language was at least mastered, the realistic spirit flourished more in the universities than in the lower schools. Yet the dominant character of the work of these higher institutions was, as has been previously noted, formal, artificial, and more or less perfunctory and traditional. The chief importance of humanistic realism is that it led directly to the sense-realism that soon found a place in organized educational work.

SOCIAL-REALISM. The Educational Concept. — This term "social-realism" is adopted to indicate a view of education

held by various educators in previous centuries, but more generally accepted during the seventeenth and eighteenth centuries, and then also most clearly expressed in theory. This view found its basis in the Renaissance, though its advocates looked upon the humanistic culture at its best as an inadequate preparation for the life of the gentleman, that is, for the educated man. Its great representative, Montaigne, said in this connection: "If the mind be not better disposed by education, if the judgment be not better settled, I had much rather my scholar had spent his time at tennis. . . . Do but observe him when he comes back from school, after fifteen or sixteen years that he has been there; there is nothing so awkward and maladroit, so unfit for company and employment; and all that you shall find he has got is, that his Latin and Greek have only made him a greater and more conceited coxcomb than when he went from home."

Education should shape the judgment and the disposition so as to secure for the youth a successful and pleasurable career in life. This view regarded education, in the frankest and most utilitarian manner, as the direct preparation for the life of the "man of the world." Holding a view as far as possible from a high idealism, or a rigid asceticism, or a fervid emotionalism, these educators looked with unconcealed skepticism upon the ordinary routine of the school and the accepted deification of the humanists' studies. To them, education should be a frank preparation for a practical, serviceable, successful, happy career of a man of affairs in a civilization formal enough in its pretenses, but not over rigid in its standard of conduct. To them education was to culminate, if it was not chiefly to consist in, an extensive period of travel for the sake of acquiring experience and familiarity with men and customs. Through travel one would acquire practical knowledge and the culture which comes from actual contact with places and people made familiar through literary study. With the social-realists, however, this view usurped practically the entire scope of education.

With many writers throughout the course of the history of education, one finds an acceptance of the view that a period of travel and the consequent broadening of one's views and one's experience form the proper conclusion of a long course of study. After the practice of sending Roman youths to Greece to complete their education had become quite common, Quintilian discusses this question. Ascham devotes a considerable portion of his *Schoolmaster* to a condemnation of this practice and this conception of education which was quite common among the gentry. In general, he objects that "Learning teaches more in one year than experience in twenty; and learning teaches safely, when experience maketh more miserable than wise." In the concrete, his objections are that "a young gentleman, thus bred up in this goodly school, to learn the next and ready way to sin, to have a busy head, a factious heart, a talkative tongue, fed with a discoursing of factions, led to contemn God and his religion, shall come home into England but very ill-taught, either to be an honest man himself, a quiet subject to his prince, or willing to serve God under obedience of honest living." This conservative English view of the result of grafting Italian and worldly culture on the native English robustness was not the common one among the gentry — who alone as a class provided an education for their children. This is one side only of the picture. Hear Montaigne describe the other.

"That he may whet and sharpen his wits by rubbing them upon those of others, I would have a boy sent abroad very young. . . . This great world, which some multiply as several species under one genus, is the true mirror wherein we must look in order to know ourselves, as we should. In short I would have this to be the book my young gentleman should study with most attention. Many strange humours, many sects, many judgments, opinions, laws, and customs, teach us to judge rightly of our own actions, to correct our faults, and to inform our understanding which is no trivial lesson. . . .

In these examples a man shall learn what it is to know, and what it is to be ignorant; what ought to be the end and design of study; what valour, temperance, and justice are; what difference there is between ambition and avarice, bondage and freedom, license and liberty; by what token a man may know true and solid content; to what extent one may fear and apprehend death, pain, or disgrace, '*Et quo quemque modo fugiasque ferasque laborem.* (And how one may avoid, or endure each hardship.)' He shall also learn what secret springs move us, and the reason of our various irresolutions; for, I think, the first doctrines with which one seasons his understanding ought to be those that rule his manners and direct his sense; that teach him to know himself, how to live and how to die well. Among the liberal studies let us begin with those which make us free; not that they do not all serve in some measure to the instruction and use of life, as do all other things, but let us make choice of those which directly and professedly serve to that end. If we were once able to restrain the offices of human life within their just and natural limits, we should find that most of the subjects now taught are of no great use to us; and even in those that are useful there are many points it would be better to leave alone, and, following Socrates' direction, limit our studies to those of real utility."

Studies are not condemned, but they are subordinated. They become but means, partial and insufficient at best, to an end which lies wholly beyond and without them. The end is found in character, the practical, successful, efficient, useful and happy life of action. In this sense the ideal is a moral, not an intellectual one; but it is moral in a matter of fact, utilitarian sense. Herein the Renaissance conception of education is exalted; but the Renaissance means to that end is rejected, just as in the narrow humanistic education the means was accepted but the end unappreciated and neglected. But as the one exaggerated the means, so the other drew the conception of character out of proportion. It was drawn rather to the scale of the individual; the worth, the success, the practicability of this training and of this life tended to be an indi-

vidualistic one. Education in its method was to be made pleasant to the individual; in its content was to be immediately serviceable to the individual; in its outcome was to equip him with good practical judgment for the affairs of life and with enough of learning and of the amenities of culture for the enjoyment of leisure hours.

Social-realism was a type of education not to be found widely represented in the schools. They were too much given up to grammar and rhetoric to think much of useful and happy lives; too much devoted to cramming the memory to think of training the judgment. This type of realism rather expressed an educational practice: one common with the upper classes of society for these centuries in most European countries. A course in foreign schools was one form adopted, if expense forbade extensive travel with a tutor. But it is a conception of education which found a presentation in educational writings, and claims as its chief representative one of the most charming writers of any age and certainly one of the most lovable of "pedagogues."

Michael de Montaigne (1533–1592) presents in his essays *Of Pedantry*, *Of the Education of Children*, and *Of the Affection of Fathers to their Children* the clearest expression of this view of education. Considerable difficulty is experienced in classifying Montaigne as an educational theorist. Professor Laurie holds that he is a humanist; Mr. Quick, that he is a realist; many other educational students classify him as a naturalist. By some he is grouped with Rabelais, by others with Bacon and Comenius, by others with Locke, and yet by others with Rousseau. The truth is that no two of these men can be grouped together in all their views, and on the other hand some ideas are common to them all. Montaigne does possess points of similarity with each of these, and yet differs greatly from each in some important respects. The sum of those differences constitutes the best characterization of that view of education here termed social-realism

The truth is that Montaigne as a skeptic refuses to subscribe to any doctrine save that all of these authoritative views of education, as well as of every other aspect of life and thought, are to be doubted. But while in regard to most subjects his views are wholly of that negative character he has some positive view regarding education.

MONTAIGNE NOT A HUMANIST. — Montaigne lived at the height of the literary movement in France, during which time the devotion to the rather narrow classicism was carried to an extreme. Montaigne himself shared in the common practice of making reference in almost every sentence to the ideas or words of some of the ancients and thus making a parade of learning. But against this very practice, at least as an ideal of education, he inveighed. He granted that a certain amount of this knowledge was desirable, that "one should taste the upper crust of science," but after all merely as an accomplishment always to be distinguished from education itself. He inveighed constantly against this misconception of knowledge and of education. "We can say, Cicero speaks thus; these were the ideas of Plato; these are the very words of Aristotle. A parrot could say as much. But what do we say that is our own? What can we do? How do we judge?" Such knowledge is "like counterfeit coin, of no other use or value but as counters to reckon with or set up at cards." For the knowledge that came through books and was primarily of books, the greatest scorn was expressed, since it had nothing to do with the real life of the individual. "A misuse enriched with the knowledge of so many things does not become ready and sprightly. A vulgar understanding can exist by the side of all the reasoning and judgment the world has collected and stored up without benefit thereby."

And again he says, in reference to the education in words then prevalent: "The world is much given to babbling: I hardly ever saw a man who did not rather prate too much.

than speak too little. Yet the half of our life goes in this way." Consequently the education favored is far removed from the dominant classicism and pedantry. "I would not have this pupil of ours," he declares, "imprisoned and made a slave to his work, nor have him acquire the morose and melancholy disposition of the sour, ill-natured pedant. I would not have his spirit cowed and subdued by tormenting him fourteen or fifteen hours a day, as some do, making a pack horse of him, neither should I think it good to encourage an abnormal taste for books, if it be discovered that he is too much addicted to reading."

Learning is not to be identified with education; knowledge is not the chief end in life nor the chief factor in life. Nor can the real wisdom of life be gained in the ways of the schools. "For though we may become learned by other men's reading, a man can never be wise but by his own wisdom."

MONTAIGNE NOT A HUMANISTIC-REALIST. — Consequently he turns to those views which have led many to classify him with the humanistic-realists. "Let our pupil be furnished with things — words will come only too fast; if they do not come readily, he will reach after them." But what is meant here by *things* is ideas. His constant preference for the education of the Spartans as contrasted with that of the Athenians, gives this distinction, and is thus expressed in one place: "The Athenians bothered their brains about words, the Spartans made it their business to inquire into things; in the one city there was a continual babble of the tongue, in the other a constant exercise of the mind." So far as he sanctions the use of books, he is, as a matter of course, at one with Rabelais and Milton; but his point of view and his conception of education are far different.

NOT A SENSE-REALIST. — Nor can Montaigne be classed with the sense-realists who followed. While he believed in the training of the senses, it was because he held that these

were all that was perfectible in man; he emphasized the importance of the physical element in education, because he believed, with the ancients, a sound body to be the basis of a sound mind; he believed that the vernacular should come first and should be taught by natural methods. But these positions were taken in opposition to the extremely artificial humanistic education of his times rather than from any new philosophy of the mind or of nature. His constantly expressed preference for things relates to the realities of thought rather than to those of the phenomenal world as with the sense-realists. If it is said, by way of rebuttal, that the humanists also sought for the realities of life and thought, the answer is to be made that the typical educational humanists of Montaigne's time and of the following centuries made no such search; or, if they did, searched in a very limited source and by inadequate methods.

Montaigne not a Naturalist. — The third classification of Montaigne, that with the naturalistic educators of the type of Rousseau, is founded upon a similarity of views in many details; but in most fundamental characteristics the views of the two men are radically different. Rousseau, for example, educates by complete isolation from the world, believing that all that society furnishes is evil. Montaigne, on the contrary, as we have seen, would send the boy early into the world; — he himself was sent to college at six years of age and to university at thirteen; — and believing that the best in life was to be gotten from immediate contact with man would educate him for life in society. In fact, with all his skepticism, this arch-skeptic has an abiding faith in human nature and bases his education upon this faith. He does believe that one can learn only through experience; not, however, simply through his own experience as with Rousseau, but rather through the experience of others. Hence the great stress that is laid upon contact with men and the study of history. "In this acquaintance with men, my purpose is that he should give

chief attention to those who live in the records of history. He shall by the aid of books inform himself of the worthiest minds of the best ages. — Let him read history, not as an amusing narrative, but as a discipline of the judgment."

MONTAIGNE'S CONCEPTION OF EDUCATION. — But few words more are necessary to give in concrete terms Montaigne's conception of the aim of education, expressed as it is in most varied terms of virtue or character and of the practical wisdom of the world. "It is not enough to tie learning to the soul, but to work and incorporate them together; not to tincture the soul merely, but to give it a thorough and perfect dye; and if it will not take color and meliorate its imperfect state, it were, without question, better to leave it alone." "It is not the mind, it is not the body that we are training; it is the man, and we must not divide him into two parts." His idea of virtue he expresses in one place in his conception of the function of the teacher; he should

"make his pupil feel that the height and value of true virtue consists in the facility, utility, and pleasure of its exercise, and that by order and good conduct, not by force, is virtue to be acquired. . . . Virtue is the foster mother of all human pleasures, who, in rendering them just, renders them also pure and permanent; in moderating them, keeps them in breadth and appetite. If the ordinary fortune fails, virtue does without, or frames another, wholly her own, not so feeble and unsteady. She can be rich, potent, and wise, and knows how to lie on a soft and perfumed couch. She loves life, beauty, glory, and health. But her proper and peculiar office is to know how to make a wise use of all these good things, and how to part with them without concern — an office more noble than troublesome, but without which the whole course of life is unnatural, turbulent, and deformed."

Not a high idealism, it may be objected, certainly no rigid asceticism; yet a wholesome corrective of the formal morality of the time, and of the pedantic scholarship which passed for education. It is a frank statement of an honest, if some

what materialistic morality; if inferior at many points to the abstract, authoritative, and ineffective idealism of the times, it at least is practicable and far superior to the actual state of affairs.

The adequate preparation for such a life is found in the study of philosophy, which should teach us not what to think, but how to live. "The true philosophers, if they were great in knowledge, were yet much greater in action." By a study of their example and their words "a man shall learn what it is to know, and what it is to be ignorant; what ought to be the end and the design of study; what valor, temperance, and justice are; what difference there is between ambition and avarice, bondage and freedom, license and liberty; by what token a man may know true and solid content; to what extent one may fear and apprehend death, pain, or disgrace." Such further studies as are needed can be selected by the same principle. "Among the liberal studies let us begin with those which make us free; not that they do not all serve in some measure to the instruction and rise of life, as do all other things, but let us make a choice of those which directly and professedly serve to that end." Herein is stated the principle that is coming to be accepted in modern times. In a story from the Greeks, which Montaigne quoted, the same principle is expressed even more trenchantly: "Agesilaus was once asked what he thought most proper for boys to learn? 'What they ought to do when men,' was the reply." The traditional studies are not to be neglected. But their importance is secondary and depends much upon the method. "After having taught your pupil what will make him wise and good, you may then teach him the elements of logic, physics, geometry, and rhetoric. After training, he will quickly make his own that science which best pleases him."

The principles of method enunciated follow as corollaries from the general conception given. Knowledge is to be assimilated, action to be imitated, ideas are to be realized in

conduct. "A boy should not so much memorize his lesson as practice it. Let him repeat it in his actions. We shall discover if there be prudence in him by his undertakings; goodness and justice, by his deportment; grace and judgment, by his speaking; fortitude, by his sickness; temperance, by his pleasures; order, by his management of affairs; and indifference, by his palate." Herein, again, are given both the elements in the ideal and the character of the method. Probably the most famous statement of method found in Montaigne, one which contains the gist of all his educational ideas, is one most frequently known in the manner condemned therein. Apropos of the traditional verbal instruction, he remarks: "To know by heart only is not to know at all; it is simply to keep what one has committed to his memory. What a man knows directly, that will he dispose of without turning to his book or looking to his pattern."

It follows from these principles previously stated that learning should be pleasurable to the child; effort should be taken to make it attractive. For the same reason the harsh measures adopted in most schools to secure application and industry are wholly condemned and rejected.

The sum total of the views on education, whether of purpose, content, or method, Montaigne expresses in words from Cicero: "The best of all arts — that of living well — they followed in their lives rather than in their learning."

SENSE-REALISM. The General Characteristics of Sense-realism. — By this term is indicated that conception of education, formulated during the seventeenth century, which grew out of and included the characteristic phases of the earlier realism previously described, but in addition contained the germs of the modern conception of education whether stated in psychological, sociological, or scientific terms. The term itself is derived from the fundamental belief that knowledge comes primarily through the senses, that education is

consequently founded on a training in sense perception rather than on pure memory activities and directed toward a different kind of subject-matter. So far as most of the characteristics mentioned are concerned, the term "early scientific movement," though it would not so clearly indicate the connection of the tendency with previous development, would be quite as accurate. For the first time we find formulated a general theory of education based upon rational rather than upon empirical grounds. For these reasons Von Raumer termed this group, including some of the more modern reformers who received their inspiration from this earlier thought, *innovators*. This term, or the term *realists*, has been frequently used to include the group of men or the tendency here defined with greater distinctness. Influenced by the new discoveries then being made in nature's processes, and the new inventions contrived to take advantage of her forces, imbued with an interest in and a respect for the phenomena of nature as a source of knowledge and truth, these realists held that education itself was a natural rather than an artificial process; and, further, that the laws or principles upon which education should be based were discoverable in nature. This belief gave rise to two tendencies observable in the work of all the representatives of this group; first, that toward the formulation of a rudimentary science or philosophy of education based upon scientific investigation or speculation rather than upon pure empiricism; and, secondly, toward replacing the exclusive literary and linguistic material of the school curriculum with material chosen from natural sciences and from contemporary life. The first tendency constituted the earliest attempt, at least since the time of the Greeks, to formulate an educational psychology, though but a very rudimentary one. While several of these men insisted upon the study of the child and the adaptation of the educational processes to the child, their thought in respect to these educational principles was controlled rather by their theory of

knowledge and, as with Bacon, by their investigation into the manner in which knowledge was advanced by humanity as a whole. They possess little if any knowledge of the development and activities of the child's mind. The view held by all of those men, which seems to us a commonplace and self-evident truth, — that the child should acquire the idea rather than the form, should understand the object before the word, or the word through the object, — constituted for this period a revolution in thought and, so far as carried out, one in practice as well. This, moreover, led to another innovation, which in that it necessitated the use of the vernacular in the earlier school years produced a practical and a permanent reform. While we have seen that both with the early Protestant reformers and with the Port Royalists the importance of the vernacular was emphasized, this importance was first established on strictly educational grounds by the sense-realists. It is true that during the seventeenth century the vernacular came into more common use; that in diplomacy and court life, the French superseded the Latin; and that in Germany before the close of the century the number of books published in the vernacular outnumbered those printed in Latin. But the very point to be emphasized is that this tendency under consideration was the first general response of education to the new social, scientific, and philosophic ideas which were the logical outcome of the Renaissance movement.

Along with this tendency to substitute the natural and social development of the child for the formal ends of education previously held, the natural and social sciences for the purely linguistic curriculum, and the vernacular for the Latin tongue, went a corresponding change in method. This was the effort toward the formulation of a method appropriate to the new subject-matter and the new aim. While not grasped at all by the earliest realists, the re-formu lation of this method, or the new emphasis placed upon it

constituted the chief claim to greatness of one whom we have here included in this group, — Francis Bacon. The educators of this group who came later in time than Bacon, all adopted this method of induction as one of the keys if not the most important key to the solution of all educational difficulties. Educationally, this thought developed into the idea of a general method, by which all children could be taught all subjects, in a way wholly novel and so expeditiously that instead of the meager results of previous times, both as regards the number of pupils who attained to any results and as regards the amount accomplished by the few who succeeded at all, all children would now be able to master all subjects.

It is necessary, therefore, to refer to one other characteristic of seventeenth-century thought in order to understand these sense-realists or early scientists in education. In this thought of the great possibilities of the new education, they but shared in the visionary hopes of the times. Partly as a reaction against the disappointment experienced on account of the failure of either the reform in religion or the recovery of the classical learning to bring about any great and rapid social betterment, the thinkers and writers of the period who strove for the general improvement of mankind turned to the new sciences and the new method for the solution of these evils. This general tendency, termed the "pansophic movement," endeavored through the universal dissemination of knowledge concerning life and nature, and by means of the new method, to raise the average of human attainment, thought, and activity to the level reached hitherto only by the favored few.

When unified, reduced, and organized by the application of the new method of induction, the sense-realists held knowledge to be comparatively simple. By means of the new method and the previous use of the vernacular all the necessary languages could be mastered as well, and within the time

and effort allotted to the mastery of one under the old system Upon the basis of this unified and simplified knowledge which consequently could be mastered by every individual, the race could go on in that course of discovery, invention, and self-improvement which, while partially realized in intervening centuries, yet forms the ideal and the inspiration of the race. Upon this uniform method and content of education they based their hopes, first of a unified language — at least unified national languages; upon that the hopes of a unified religion in place of the innumerable dissenting bodies then existing; and upon that a unified political life and organization. It is to be noted, however, that rationality, not authority, was to form the basis of all this. This — the new education of the seventeenth century — was expressed in the educational writings of the times; however, it acquired but slight influence upon the schools, and that of gradual, almost imperceptible, growth.

Some Representative Sense-realists. — A movement so lasting and so fundamental naturally found expression in the writings and in the work of many men, some of whom perceived the new idea in a few of its aspects only, while others grasped it in its entirety. Two or three of these representatives who wrote before the philosophy of the movement had been formulated by Bacon and Descartes are quite worthy of study if space permitted. Among these are the Frenchman, Peter Ramus; the Spaniard, Ludovico Vives; the Englishmen, Mulcaster, Hoole, Hartlib, Petty, and the philosopher Bacon; and above all the Czech, Comenius. But two of these, Bacon and Comenius, can be studied in detail.

Richard Mulcaster (1531–1611) was one of the earliest of these. One of the most famous of early English schoolmasters, — for he served as the headmaster of the Merchant Taylors' School from 1561 to 1586 and of St. Paul's from 1586 to 1608, — he speaks with the authority of a practical

schoolman as well as that of a theorist. All the more interesting from his service at the head of these great Renaissance schools is his main argument in regard to education; namely, that the study of the vernacular should precede both in time and in importance the study of Latin. This is urged both because it is the native tongue and because it is the only language that the majority of the boys even of the Latin schools will ever use Mulcaster was far from believing that education should be universal, but he held that it should be effective with those for whom designed. He possessed the courage of his convictions, and wrote in the English tongue with such excellence, in the formal style characteristic of the times, that he frankly but rashly claimed that his writings constituted the appropriate models in the new study as did Cicero in Latin or Demosthenes in Greek. The view concerning the importance of the vernacular, advanced in his earlier work, was elaborated in a treatise devoted entirely to the subject, entitled *The Elementarie, which entreateth chiefliе of the right Writing of the English tung.* In his work published in the preceding year (1581), entitled *Positions wherein those circumstances be examined, which are necessary for the training up of children either for skill in their booke, or health in their bodie*, he expresses views that entitle him to be classed among the reformers of the following century. The "positions" expounded are forty-five in number, but the greater number of them relate to the training of the body and of the disposition through games and exercises. Since the natural abilities of the child are to be considered and studied, and since they are developed primarily by physical training, such training is a component part of his idea of education. The three natural powers in children are "Wit to conceive by, Memory to retain, Discretion to discern by"; not a very exhaustive psychological analysis but a move in the right direction. In both treatises the idea of education according to nature is advanced, and in a much saner form than the

eighteenth-century exaggeration. As a reaction against the formal, repressive school work of the times, which aimed at the eradication of many of the tendencies and activities natural to childhood, Mulcaster held that education should not aim either to force or to repress the child, but that "the end of education and training is to help nature to her perfection." Two or three corollaries of great importance follow from this view of the nature of education; one, that while all children can profit by some elementary training in the vernacular, yet on the other hand too many seek the higher education in the classical tongues which is not fit for all; another that education of both grades should be for boys and girls alike; further, that education in the schools is preferable to education by tutors. This latter view led to the elaboration of a *position* that forms one of the remarkable previsions of the work, that is, concerning the training of teachers. The arguments for the training of teachers are fully stated, but, in addition, Mulcaster holds that the universities should provide for this as for the professions of the law, medicine, and the ministry. The sixteenth-century prevision awaited the close of the nineteenth century for its fulfillment.

Aside from the emphasis upon plays, games, and exercise, with their general physical and moral results, Mulcaster has little to say concerning the chief feature of sense-realism, that is, the training of the senses through a study of the phenomena of nature. But in his views regarding the training of the body, the limited value of Greek and Latin, the universal value of the vernacular, the demand for a study of the child, the demand that education be made pleasurable and in his view of education according to nature, Mulcaster is at one with the later members of this group and is one of their important forerunners.[1]

[1] More adequate treatment of Mulcaster will be found in Barnard, *English Pedagogy*, first series, pp. 177–185; Oliphant, *Educational Writings of Richard Mulcaster* (Glasgow, 1903); Quick, *Educational Reformers* Ch. VIII; Quick

Francis Bacon (1561–1626). — Highest among those who caught a preliminary glimpse of the coming reforms in the character of the intellectual life and in education, and above those who made the specific application of these new discoveries to education, stands the English philosopher Francis Bacon. He possessed little knowledge or interest in either educational questions or processes, and wrote little directly on either topic; yet he it was who gave learning or science, and consequently education, a new basis, a new purpose and a new tendency.[1] Bacon was not the discoverer of new ideas, for he but sums up the Renaissance tendencies against authority in the intellectual world and toward the discovery of the realities of the phenomenal and of the thought world; nor, since the inductive method is used in a practical way by every human being and had been used in a scientific way by the later Greek philosophers and by some of those who shared their intellectual inheritance, was he even the discoverer or inventor of a new method.

Bacon gave to philosophy or to science, that is, to the intellectual life, a new purpose, in that he rejected the previously accepted aim, — that of the theoretic formulation of knowledge, — in favor of the practical and useful aim. Of the past he says: "Philosophy and the intellectual sciences, are adorned and celebrated like statues, but like statues, are not moved from the spot whereon they stand." This condition he contrasts with that of the mechanical arts, which "are daily increased and brought to perfection" because their aims are practical and useful. The intellectual life is to be made fruitful, as the old speculation was not, by being made practical. What is true of the intellectual life in general is more so of its method, — education. In becoming fruitful it becomes useful to the many instead of attainable only by the few.

Mulcaster's Positions (London, 1888); Watson, *Mulcaster and Ascham* (New York, 1899).

[1] See Fisher, *Francis Bacon and his Times.*

This fruitfulness was to be gained by giving the intellectual life, or science, a new foundation, — nature. This practical knowledge must be of our natural environment, its phenomena and its processes rather than the knowledge of the phenomena of the mind, interest in which had absorbed all philosophy from the time of the early Greeks. Neither theology nor ethics nor metaphysics, the bases of previous philosophies, but physics was to serve as the foundation of the new. Even the moral and political philosophies were to receive new meaning — they found little if any in the past — by being founded on or referred to the natural sciences. In this position Bacon foretold, though he did not clearly foresee, the evolutionary formulation of those sciences and paved the way for their eighteenth and nineteenth century development. How much more would this be true of education according to the views of the Baconian disciples. It is in this particular that the significance of the sense-realism of this period is found, — in that later formulation of this educational doctrine in the theory that all knowledge comes primarily through the senses. Bacon himself had no full grasp of the idea. So also had none of his followers till Locke. They were concerned with the objective process, how knowledge is produced and made practical for the race, not how it is acquired psychologically by the individual.

The new tendency given to the intellectual life and to education was away from the formalism of the old learning, toward the realism of the new; from dealing with words and abstractions, to dealing with objects and ideas. The tendency of the intellectual life was not toward the formulation of closed systems of thought which were satisfied with definitions and abstract formulations. Nor was education directed toward a mastery of words and logical power in handling the syllogism developed through a discipline in grammatical forms, and in "defining," "determining," and "disputing." No matter whether developed through Roman

or Protestant theological scholasticism, through Aristotelian metaphysics and philosophy, or through humanistic and linguistic formalism, the fundamental pedagogical idea is the same. Intellectually, the new tendency in thought was directed toward the formulation of fruitful principles of interpretation and methods of investigation that could never produce a perfected system of thought; educationally, it was concerned with the entire realm of the knowledge of nature and of society and with the use of a method that would develop in the individual power of dealing with this world of reality.

Bacon himself was not the first, nor the only one of his times, to participate in these tendencies; for Copernicus, Vives, Da Vinci, and others worked immediately before him, and Galileo, Descartes, Kepler, Grotius, Boyle, and others along with him. But Bacon, of them all, seized the whole problem, stated its terms, and formulated its equations. In actual solutions he did less than many of the others. In 1592 he stated to his father: "I have as vast contemplative ends as I have moderate civil ends, for I have taken all knowledge to be my province; and if I could purge it of two sorts of powers, whereof the one with frivolous disputations, confutations, and verbosities (the Schoolmen), the other with blind experiments and auricular traditions and impostures (unmethodical investigators, *e.g.* alchemists, astrologers, etc.) hath committed so many spoils, I hope I should bring in industrious observations and profitable inventions and discoveries — the best state of that province." His plan as indicated in the introduction to the *Instauratio Magna* was to erect a new temple of human wisdom, not using the material of the old, which he thought altogether useless and unsafe. "It is idle to expect any great advancement in science, from the superinducing and engrafting of new things on old; we must begin anew from the very foundation unless we would revolve forever in a circle with mean and contemptible projects." He draws this design not only for his

own work, but for all future intellectual effort, for which his own was to serve but as a model in miniature. The first part of his plan was to survey human knowledge in its existing stage, to construct a chart or map of the intellectual world, including not only these facts well known, — the previous systems, — but also those unknown or barren regions which, though ready for exploration, had rarely been visited by the human mind. This he did in his *Advancement of Learning*, the only part of his plan even approximately completed. The second part of his work was to formulate the method for the investigation of phenomena, the determination of the process by which the new edifice was to be erected upon the foundation previously laid. This is the *Novum Organum*, the new method, — induction, — opposed to the *Organon* of Aristotle, which had determined the intellectual methods of centuries. Bacon only finished a part of this work, but sufficient to give a profound and determining influence to all modern thought. Third, was his design to collect the results of experience with nature as an "Experimental History of Nature." Only fragmentary portions of this work, such as the *Sylva Sylvarum*, were ever completed. Fourth, he was to attempt an outline plan of natural philosophy, the detailed design of the superstructure, from the material collected in carrying out the second and third portions of his plan. The fifth and sixth parts of his plan, the edifice itself, were to consist in the collection of the empirical results already attained and the formulation of the true philosophy of nature. While scattered fragments of Bacon's works refer at least to the fifth portion of this outline, he did little, and necessarily could do little, with the latter half of his plan; for, in the first place, all succeeding time has been at work along these lines without reaching Bacon's ideals; and, in the second place, his great purpose was not to complete a system of thought, but to mark out lines of intellectual endeavor and advance.

The Educational Influence of Bacon may be briefly summed up under the heads previously mentioned, the new purpose and basis, or his influence on the subject-matter of education, and the new method.

Subject-matter. — Bacon's aspirations for a formulation and reorganization of the entire realm of human knowledge such as would serve for the improvement of human welfare, even for the regeneration of society, by basing it not upon the old literary knowledge which concerned itself with man, but upon the new scientific knowledge which concerned itself with nature and hence dealt with uniformity and not variability, were shared by many philosophers, educators and statesmen of his time. This was the "pansophic" ideal of the seventeenth century. Knowledge when unified was a comparatively simple thing, they held. They held that when based upon the uniformity of nature instead of upon the variability of man, it dealt with laws and principles that could be investigated and determined by definite methods, not by guesswork; it dealt with forces that could be controlled and used for human progress; that were dynamic rather than static in character. Such knowledge must be derived primarily from a study of the phenomena of nature; and only secondarily from the phenomena of the mind, that is, from the language, the literature, the philosophy, and the theology of past generations. Education through the schools should secure the dissemination of this knowledge, because when unified it would be within the grasp of every child. And when so disseminated the problems of society, especially those of diversity in human speech, in human beliefs, and in human government would be solved. Bacon even held that education, under the name of tradition, — that is, the transfer of the intellectual possessions of the race from one generation to another, — should be an object of study in itself, as the most important of social processes.

Within the centuries since the opening of the Renaissance man's empirical knowledge of the material universe and his

power over it had been marvelously expanded. The world of thought had not kept pace with this. The problem, to Bacon, was to expand the intellectual world until it should not only correspond to and keep pace with this expansion, but should precede it. He considered that it was dishonorable that "the boundaries of the intellectual world should be confined to the discoveries and straits of the ancients." Consequently, study was to be directed toward the phenomena of nature as the only means of bringing about this equilibration between practical opportunity and duties and knowledge. With his followers this new and productive kind of knowledge was to be made the subject-matter of school work; not because knowledge came only through the senses, — a principle not yet fully formulated in its modern meaning, — but because such knowledge was the only real and fruitful knowledge, because such knowledge made up the bulk of the whole pansophic scheme of thought, and because the renovation of society was thus to be brought about. This is the earlier form of sense-realism in education. Education now received a more than individualistic value of either religious or practical character, and derived a hitherto unknown social value. Education, as science itself, was with Bacon but a means to an end, — the dominance of man over things; "human science and human power coincide." To such knowledge and to such power, there was no limit. If the expectations of these men led by the pansophic ideal appear to us now as wholly visionary, no less so to their own times did those specific instances of the expansion of human power through knowledge of nature, clearly foreshadowed by Bacon and realized only in the present. His entire teaching, in regard to both the purpose and subject-matter of education, is summed up in a single brief paragraph written of the whole intellectual life: "Man is but the servant and the interpreter of nature; what he does and what he knows is only what he has observed of nature's order in fact or in thought; beyond this he knows nothing

and can do nothing. For the chain of causes cannot by any force be loosed or broken, nor can nature be commanded except by being obeyed. And so those twin objects, human Knowledge and human Power, do really meet in one; and it is from ignorance of causes that operation fails."

Little explicit reference is made in any of Bacon's works to the particular bearing of his general ideas concerning knowledge on concrete educational work. However, the closing portion of his incomplete Utopia, *The New Atlantis*, is devoted to a description of the ideal educational institution, the investigating university, called Solomon's House, which foreshadows much that universities, scientific departments of governments, and learned investigators now do and much besides in a scientific way that is yet in the realm of unachieved human aspiration. The modification of species, animal and plant; curative methods, through hypodermic serum infusions; the modification of metals, as in steel; the transformation of various forms of energy; the steam engine; communication at a distance, were some of these remarkable previsions of scientific innovations. Yet even here it is the spirit and the principle rather than the detail that is significant.

Method. — In order that science and by inference education should become practical, powerful and helpful, a new method as well as a new subject-matter was necessary. In fact the new subject-matter could only be dealt with by a new method. "There are," he says, "and can be only two ways for the investigation and discovery of truth. One flies from the senses and particulars to the most general axioms, and from these principles and their infallible truths determines and discovers intermediate axioms. And this is the way now in use. The other constructs axioms from the senses and particulars, by ascending continually and gradually, so as to reach the most general axioms last of all. This is the true way, but it is yet untried." With the old

method of thought, the entire process is controlled by its starting point, which is an axiom, a thing given or determined. With the new method, the entire process is controlled by the goal to be reached, which is a problem to be solved by investigation of particulars. With this method the particulars are discoverable by observation, not given by authority; the problem is solved and the principles are determined by induction. The practical goal, beyond the scientific problem, is reached by the application of the principle through the deductive process to the practical problem. The result is an invention, — the practical application of knowledge to human welfare and power. This is the complete circle of Baconian thought involving both methods. Only the deductive method is secondary. He does not deny, as do many of his followers, its validity for the discovery of truth, though he does deny that the truth apt to be reached by this method will result in the advancement of human power and usefulness. He specifically admits that there is a "theological science" as well as a natural science, and that the appropriate method of the former is deduction and "analogy." In fact, Bacon is not averse to the use of "analogy" in various portions of his works.

Striking advance had been made in Bacon's time and most of it had come as a result of accidental discovery, as with the compass, gunpowder, the telescope, and the printing press. Bacon aimed to change this chance to design; "for though it may happen once or twice that some one by chance hits upon what has hitherto escaped him, while making every effort in the inquiry, yet without doubt the contrary will happen in the long run. For chance works rarely and tardily and without order; but art constantly, rapidly, and in an orderly manner." The new method, the art of discovery or of invention, not the whole method of human thought, was formulated in the *Novum Organum*. Bacon stated the logic of the new, as Aristotle did that of the old

The goal which Bacon held to be of sole value was power over nature: knowledge of nature was the source of all such power; observation, investigation, experimentation, was the sole method of reaching that knowledge. This knowledge could not be obtained by the old scholastic method, that of definition and of the syllogism; — methods valid enough for the truths which they sought, but truths to Bacon not worth the search. Nor did Bacon hold to the nominalistic formula, "only that is in the intellect which first is in the senses," or to its modern restatement as a determinant of all method; for he held that the senses unchecked were particularly unsafe guides. He opposed the Aristotelian observation, unchecked by test, as vigorously as he did the syllogistic deduction of the Schoolmen. The experience of the senses must be checked by experiment. Neither the senses, as seen in the case of a test of temperature, nor the understanding, as in the long-accepted Ptolemaic explanation of the motions of the earth and the sun, are safe guides when left to themselves. Truth is not reached by the mere accumulation of similar instances. Such, he objected, is the character of Aristotelian induction and of untrained empirical wisdom. A generalization reached inductively is not valid unless tested by the "negative instance"; for one such instance to the contrary will counterbalance the weight of any number of a positive character in the establishment of a universal law or principle such as are those of nature.

The difficulties in the way of the employment of the proper method and the discovery of knowledge worthy of human endeavor, Bacon termed "idols" (*Novum Organum*, xxxix); and classified them as idols of the tribe, those that "have their foundation in human nature as such, and in the tribe and race of men"; idols of the den, or the personal bias of the individual; idols of the market place, or those which arise from the manners, customs, and usages of men in their social intercourse; and idols of the theater, those which depend

upon doctrines, dogmas, and traditions. Now invention, consequently progress, is only arrived at by an interpretation of nature without the intervention of any of these idols, consequently only by the scientifically guarded inductive method. Then we come to know things as they really are, not merely as popularly represented. This is the aim of science, of philosophy, of education.

But this method has one more scientific relation to educational work, made not by Bacon but by his followers. Bacon in his method was not thinking of the subjective process, the psychological bearing of his great idea, but merely of its objective value. He was concerned in showing how the race as a whole could come into the possession of that knowledge which would be of permanent benefit to itself, and to indicate the tests of real knowledge. But in showing how it is that we know, he by inference indicated how it is that the individual comes to know and also how the individual should be taught. Bacon himself was interested primarily in the subject-matter of thought and the possible outcome of it; only secondarily in the process of thought. But as method elaborated by Bacon revolutionized the scientific knowledge of the race and led to unprecedented progress, so its educational application, as made by his followers, especially as introduced by Comenius, in time revolutionized school method. The specific application of these we are to see later.

The position of Bacon in the history of education, as in the history of human thought, is usually either much exaggerated or undervalued. On the one hand he was not the discoverer of a new method of thought, for he had predecessors as well as co-laborers. He formulated this method, however, showing that hitherto nature had been rather anticipated by happy chance than interpreted by certain method. Nor on the other hand was he a man who simply repeated what was a time-worn familiarity with all great thinkers. He showed that, while all men have experience and guide their conduct

empirically by it, experience is far from explicit invention through scientific method. Nor is he to be charged with the narrowness of some of his followers of exalting one phase of the thought process to the exclusion of all others, or identifying the test of knowledge with the source from which all knowledge is obtained. Bacon's educational interpreters are next to be considered.

Wolfgang Ratke (Ratichius or Ratich), who lived from 1571 to 1635, first formulated in educational terms those ideas concerning the new subject-matter of study and the new methods of investigation conducive to the advancement of human welfare that were a part of the new spirit of the early seventeenth century, and were first definitely formulated by Bacon.

The early formulation of the new educational ideas by Ratke was presented to several princes and cities, and finally to the Diet of the German Empire at Frankfort in 1612. In this presentation, which attracted attention as well by its novelty as by its scope, Ratke claimed: (1) By his new method to be able to teach Latin, Greek, and Hebrew tongues more thoroughly and in a much shorter time than had hitherto been devoted even to the one; (2) by use of the vernacular as the basis for instruction, to give to all children a thorough knowledge of all the arts and sciences; (3) through the continual use of the vernacular and the new methods to bring about the use of one language among all the German people in place of the multitudinous dialects, and thus to lay the basis in the uniform language for uniformity in religion and ultimately uniformity in government. This plan, submitted to the examination of representatives of two university faculties, was approved in both cases.

Ratke, however, failed of the success in the practical application of his ideas that he attained in their theoretical presentation. Having interested, in succession, the Pfalzgrave of Marburg, the Landgrave of Darmstadt, the Duchess of Weimar, the municipal authorities of Augsburg and of Frank-

fort, the Princes of Anhalt-Köthen, and of Weimar, and the Chancellor of Sweden, he failed in each case to put his ideas into successful operation and consequently to retain the support of the authorities. In the case of Köthen an extensive printing establishment, necessary to carry out his ideas of language teaching, and a school of five hundred children were furnished him. But, owing more to the character of his personality than to any defects in his ideas, he was successful with neither institution.

However, the innovator succeeded in convincing many of the truth and the value of his new educational ideas, and gathered around him a number of personal followers. From these, or from Ratke himself, with an authorship not clearly determinable, came an extensive literature of education both in the way of text-books and expository treatises. Thus the ideas and the inspiration were passed on to a succeeding generation — one that produced in Comenius a leader capable of making these ideas practically effective, as well as of giving them a better formulation.

The thought underlying all the other principles was that everything should be done in its natural order, or in the course of nature. "Since nature uses a particular method, proper to herself, with which the understanding of man is in a certain connection, regard must be had to it also in the art of teaching; for all unnatural and violent or forcible teaching and learning is harmful, and weakens nature." While this was a direct attempt at a general method, it was not based upon psychological principle, but rather upon general and often artificial comparisons with the phenomena of nature, or upon purely superficial resemblances between the processes of the mind and the processes of biological development in plant or in animal.

Others of these principles, important as reformatory influences and as permanent truths, can only be suggested: each thing should be oft repeated; everything first in the mother

tongue; everything without compulsion; nothing should be learned by rote; mutual conformity in all things (*i.e.* comparative grammatical study of the languages); first the thing itself, and afterward the explanation of the thing; all things through experience and investigation or experiment.

The last of these contains the essentials of the Baconian reforms; the next to the last, the essentials of the Pestalozzian reforms; all of them are foreshadowings of the Comenian reforms.

The relation which these principles bear to the entire sense-realistic movement justifies a more detailed statement than is given here.[1] Historically these ideas find their full exemplification with Comenius rather than with Ratke. The latter, however, deserves the credit of their early formulation, though he worked rather as a visionary and unpractical revolutionist than as a successful reformer.

John Amos Comenius (1592–1670). — Whether considered from the point of view of theoretical writings or from that of direct treatment of schoolroom problems, Comenius is one of the most important representatives of the realistic movement as well as one of the leading characters in the history of education. Indeed, the most scholarly of his recent biographies expresses the judgment that Comenius is "the broadest-minded, the most far-seeing, the most comprehensive, and withal the most practical of all the writers who have put pen to paper on the subject of education; the man whose theories have been put into practice in every school that is conducted on rational principles, who embodies the materialistic tendencies of our 'modern side' instructors, while avoiding the narrowness of their reforming zeal." However, this panegyric contains an exaggeration in that, while the writings of Comenius deserve all of this encomium, his actual influence on his own

[1] A more adequate treatment is given in the translation of Von Raumer, in Barnard's *German Teachers and Educators*, pp. 319–347. This is condensed in Quick's *Educational Reformers*, Ch. IX.

and following generations was slight save in one respect, — that of a more scientific method of teaching the languages as embodied in his text-books. For almost two centuries even the very knowledge of these most important educational writings ceased to exist; consequently, they had little or no direct influence upon later educational reformers. It is true that Comenius's ideas "have been put into practice in every schoolroom conducted on rationalistic principles," but altogether aside from any influence exercised by Comenius; for a knowledge of Comenius and his writings was unknown by those who practiced his principles. The greatness of Comenius consists more in his early formulation of those principles in concrete terms, than in his direct influence in the introduction of such principles into subsequent educational practice. After his own generation, it was not until near the middle of the nineteenth century that these remarkable educational writings of Comenius were again called to public attention by the early German historians of education, and consequently that due recognition was given to the place of Comenius in educational reform. His ideas of education were similar to those of Ratke, to whom, however, on account of the secrecy and charlatanism of the former, Comenius owed little or nothing, save the suggestion of a "natural" method. These ideas, common to both, were worked out into a far more extensive scheme and in much greater detail by Comenius. They were more consistent, more logically presented, and far more modern than were those of the earlier innovator, who now arouses, as he did in his own generation, as much disgust for his folly and chicanery as he does respect and admiration for his pioneer work in educational thought.

Comenius lived a long, industrious life, full of sacrifice for his religious brethren in exile, of devotion to his great intellectual ideals, of trial through persecutions, religious and personal, and finally of disappointment in the fruition of his

hopes. Few biographies of educational leaders possess more interest; but reference to several excellent works of recent publication must answer as a substitute for one in this connection. The most immediate interest of Comenius throughout his life, first as pastor of their largest congregation, and later as bishop of the entire commission of the Moravian brethren, then in exile from their native country, was in furthering the interests of Christianity, of the Protestant cause, and especially of his own denomination. In his later life the duty of protecting his religious brethren from persecution and extinction, either by means of his personal influence or through distribution of the funds raised by the other Protestant countries of Europe, consumed much of his time and energy.

Purpose of Education. — Religion determined for Comenius the aim and general conception of education. Religion was to work in and through education both for ultimate ends and for the immediate regeneration of society. In these views Comenius did not go beyond the other educators, both Protestant and Roman Catholic, of his own and preceding generations, unless it was in the more thorough-going belief in education as a social as well as an individual regenerating force.

"The ultimate end of man is eternal happiness with God," he stated as the primary principle of the *Great Didactic*. The purpose of education was to assist in attaining this great end. So far, all the educators of these centuries agreed. But it was in the conception of education as a means that they differed so widely. Hitherto education assisted toward this end by tending to eradicate the natural desires, instincts, and emotions, and by furnishing a mental and moral discipline tending to these ends. Comenius worked along an entirely new line, one that ultimately became the line of modern educational endeavor, though with fundamental purposes formulated somewhat differently. With Comenius the ulti-

mate religious end was to be obtained through moral control over one's self, and this in turn was to be secured by knowledge of one's self and consequently of all things. Knowledge, virtue, and piety, in this order of their acquisition, were the aims of education. What Sturm and the Reformation educators propounded as isolated ends, Comenius unified in a logical and psychological relationship, and gave a radically different interpretation of the initial element, — knowledge, — the one element relating directly to the school. This advance, however, was so radical that it affected vitally every phase of education, — content, organization, method, and text-books.

Content of Education. — This change respecting the subject-matter of education can best be presented through an explanation of the great purpose and endeavor of the entire life of Comenius; for his religious activity and his contributions to the improvement of schoolroom procedure were both immediate duties which he did not shirk. But both were of subordinate importance when compared with his greatest aspiration, namely, the complete reorganization of human knowledge, along Baconian lines, with the consequent expansion of that knowledge and of human power and happiness. This pansophic movement of the seventeenth century produced many notable attempts at reorganization. Of these the *Advancement of Learning* of Bacon and the *Encyclopedias* of Henry Alsted and of Campanella were notable examples. Probably both Alsted and Campanella had greater influence on Comenius than did Bacon. This idea of the encyclopedic organization of human knowledge was a common one throughout the Middle Ages; but the execution attempted by Comenius and by the pansophic writers of the sixteenth and seventeenth centuries was quite different. Comenius's aim was to give "an accurate anatomy of the universe, dissecting the veins and limbs of all things in such a way that there shall be nothing that is not seen, and that

each part shall appear in its proper place and without con fusion." Previous encyclopedias had been mere collections of facts; his was to be an arrangement of facts around universal principles, so that in all the arts and sciences, starting from the essential point of the universal law as a basis, study could proceed from what is best known by slow degrees to what is less familiar until all knowledge was compassed. So in his *Janua Rerum*, as later in his text-books, each chapter and each paragraph was to lead up to the next, thus embodying his universal principle of method.

Having already published a *Physics* (1633), which gave such a synopsis of the physical universe, and a *Prodromus Pansophiæ*, or *Precursor of Pansophy* (1637), he constructed a *Janua Rerum*, or *Gate of Phenomena*, which was to perform for the universe of things that which his most famous book, the *Janua Linguarum*, had done for languages. The principles formulated by Comenius as underlying all of this work are the best comment both concerning its advance beyond the intellectual attitude of the times and also concerning its scientific character from the present point of view.

APHORISMS

1. Universal knowledge, so far as it can be obtained by man, has as its objects God, nature, and art.
2. A perfect knowledge of these three is to be sought.
3. The knowledge of things is perfect when it is full, true, and ordered.
4. Knowledge is true when things are apprehended as they exist in reality.
5. Things are apprehended in their essential nature when the manner in which they have come into existence is understood.
6. Each object comes into existence in accordance with its "idea," that is to say, in relation to a certain rational conception through which it can be what it is.
7. Therefore, all things that come into existence, whether

they are the works of God, of nature, or of man, do so in accordance with their "ideas."

8. Art borrows the "ideas" of its productions from nature, nature from God, and God from himself.

9. In fashioning the world, therefore, God produces an image of himself, so that every creature stands in a definite relation to its creator.

10. As all things share in the "ideas" of the Divine mind, they are also mutually connected and stand in a definite relation to one another.

11. It follows that the rational conceptions of things are identical, and only differ in the form of their manifestation, existing in God as an archetype, in nature as an ectype, and in art as an antitype.

12. Therefore the basis of producing as of apprehending all things is harmony.

13. The first requisite of harmony is that there should be nothing dissonant.

14. The second is that there should be nothing that is not consonant.

15. The third is that the infinite variety of sounds and concords should spring from a few fundamental ones, and should come into being by definite and regular processes of differentiation.

16. Therefore, if we know the fundamental conceptions and the modes of their differentiation, we shall know all things.

17. Such rational conceptions can be abstracted from phenomena by means of a certain method of induction, and must be posited as the norms of phenomenal existence.

18. These norms of truth must be abstracted from those objects whose nature is such that they cannot be otherwise, and which are at every one's disposal for the purpose of making experiments, that is to say, from natural phenomena.

The knowledge of physical phenomena became, for him, the most important object of study, and the main influence of his teachings in respect to subject-matter was the introduction of such material into the school books actually used, together with the exposition of this idea in all his works.

On the other hand the extent to which Comenius grasped the modern scientific spirit is evidenced by his use of the term "ideas." This he used in true Platonic sense and with quite as scholastic a method as any Schoolman of the Middle Ages. While in the last of these aphorisms he expressed an approval of the inductive method of Bacon, he in reality has little sympathy with the experimental method. At least, while it might answer for purely natural knowledge, he held it to be insufficient for his *Pansophia*, which dealt with the whole universe. The truth was that Comenius was a theologian and applied in his scientific thinking the methods of a theologian. Although he sought to give natural phenomena a different treatment, and in his arrangement of them in his text-books he did succeed in following the inductive plan, yet for the most part he used merely the method of analogy instead of experimentation and usually demonstrated a historical or scientific as well as theological point by quotation of Scripture.

The English friends of Comenius urged him, as the only man capable of undertaking such a work, to organize and conduct a school similar to "Solomon's House" as described in Bacon's *New Atlantis*. In fact, it was for some such purpose that Comenius went to England in 1641, and Parliament, which had summoned him, would have granted him the support and the school had not the Irish rebellion and later the Puritan revolt broken out. The most important work on pansophy attempted by Comenius was destroyed in manuscript in 1657, so that we have merely his text-books and his descriptive writings on this subject. Some of his later works on the subject were completed by his assistants after his death. His life's ideal was the reorganization of human knowledge to serve, in connection with a universal language constructed artificially, as a basis for the reorganization of human society. This was destined to remain unfulfilled. His persistent efforts toward its realization resulted only in arous-

ing through his works almost a general enthusiasm for the propaganda and in introducing new material and to some extent a new method into school work. Such work, however, continued thereafter, as before, to be chiefly directed toward the study of the Latin tongue. In regard to the first, while many scoffed, many held that through this effort of Comenius a benefit second only to the revelation of God's word was about to be conferred upon the human race; in regard to the second, Comenius was known to the two succeeding centuries only as the writer of text-books and as the inventor of a new method of studying the Latin language.

METHOD. — The general thought of a method "according to nature," which Comenius advocated and applied throughout all his writings, must be distinguished from that particular part of it which approximated the Baconian induction and formed the basal idea of his text-books. Reference has been previously made to Comenius's failure to grasp the full significance of Bacon's formulation of the scientific method and of his preference for a natural method founded on analogy, which in its interpretation was never fundamental and was frequently superficial and fantastic. Comenius argued that Bacon's method was competent to distinguish truth from falsity, but that it applied only to natural phenomena, while pansophy considered the entire universe. In the introduction of his first pansophic work he states that the three channels through which knowledge comes to us are the senses, the intellect, and divine revelation; and that "error will cease if the balance between them be preserved." In the *Great Didactic* Comenius specifically states that the principles of that work were formulated *a priori* and does not even mention Bacon in the entire work. Essences and principles find place in his philosophy as in that of the fantastic pseudo-scientists of the Middle Ages. In his *Physics* the world is constituted from the three principles of matter, spirit, light; while the "qualities" of all things are consistency (salt), oleosity (sul-

phur), and aquosity (mercury). Yet despite these survivals of the mediæval, he stands distinctly for the study of natural phenomena and the dependence upon sense perception as the source of knowledge concerning nature.

Notwithstanding this partial grasp of the significance of the inductive method when applied to the investigation of natural phenomena, when it came to the practical problems of instruction in the schoolroom, Comenius did clearly see the importance of the new method and first applied it to the actual processes of instruction. This is a field where Bacon was much more of a stranger than was Comenius in the realm of the larger philosophical and scientific problems. In the chapter on the *Method of the Sciences* Comenius states nine principles of method, which, though they may be deductively formulated, yet must have grown out of his own long experience as a teacher. These principles are embodied in all his texts. Their great historical importance is explained by the fact that all more modern formulation of educational procedure has but established similar principles on a more scientific basis. Since it was the concrete embodiment of these ideas that led to the remarkable success of the text-books and to the beginning of radical reforms in schoolroom work, these principles also explain the practical importance of the texts. They are stated thus: —

1. Whatever is to be known must be taught (that is, by presenting the object or the idea directly to the child, not merely through its form or symbol).
2. Whatever is taught should be taught as being of practical application in everyday life and of some definite use.
3. Whatever is taught should be taught straightforwardly, and not in a complicated manner.
4. Whatever is taught must be taught with reference to its true nature and its origin; that is to say, through its causes.
5. If anything is to be learned, its general principles must first be explained. Its details may then be considered, and not till then.

6. All parts of an object (or subject), even the smallest, without a single exception, must be learned with reference to their order, their position, and their connection with one another.

7. All things must be taught in due succession, and not more than one thing should be taught at one time.

8. We should not leave any subject until it is thoroughly understood.

9. Stress should be laid on the differences which exist between things, in order that what knowledge of them is acquired may be clear and distinct.

The application of these principles to the text-books was far more successful both from the point of view of language study and from that of the study of phenomena of nature and of institutions than was that of the general "method of nature" in his more abstract pansophic works.

TEXT-BOOKS. — Comenius had been a student of education from his early school days. He began to teach upon leaving the university, and later combined the supervision of schools with his pastoral work. Even when nearly sixty years old (1650) he returned to the care of schools with the acceptance of the directorship of the gymnasium at Saros-Patok, Hungary, where he remained for several years. Consequently, his text-books were not the work of a mere theorist but of one who combined, as no one before him had ever done, a theoretical knowledge of educational problems, derived from contemplation and from study, with the practical experience of the schoolroom. His objections to the work of the school were those noticed by all of the reformers and educational writers of his time; that study was confined to the Latin language and literature; that languages were taught merely as words, with no attention to the objects or ideas back of the words; that this study was approached and continued wholly through grammatical rules and forms; that physical force was used to compel attention and industry and to punish failure to accomplish tasks; that there was neglect of all

order and rational progress in the gradation of material; that all this resulted in making the schools places of torture for children instead of places of interested activity and growth.

Even before he was possessed by his great pansophic ideas, Comenius had made it his chief endeavor to reform schools both by the formulation of educational principles and by the construction of text-books that would obviate the above-mentioned evils. In 1631, the year before the completion of the *Didactica*, Comenius published the *Janua Linguarum Reserata*, or *Gate of Languages Unlocked*. This was his most famous book and alone would have made him a notable character in his own century. Within a short time it was published in Latin, Greek, Bohemian, Polish, German, Swedish, Belgian, English, French, Spanish, Italian, and Hungarian of the European languages, and into Arabic, Turkish, Russian, and Mongolian of the Asiatic. For many generations the schoolboys of three continents thumbed this book as their primer to the languages instead of the Donatus and Alexander of preceding generations. And very different from these it was, though in some respects not much less difficult. The plan of the book was simple and "natural." Starting with several thousand of the most common Latin words referring to familiar objects, the plan was to arrange them into sentences, beginning with the simplest and becoming progressively more complex, and in such a manner that a series of related subjects would be presented, the whole presenting a brief encyclopedic survey of knowledge as well as affording a vocabulary and a working knowledge of simple Latin.

This text will give a fair conception of the pansophic ideal as well as the new tendency in the subject-matter of education. The one hundred different chapter headings included such subjects as these, introduced in the order given: Origin of the World, the Elements, the Firmament, Fire, Meteors,

Water, Earth, Stones, Metals, Trees and Fruit, Herbs and Shrubs, Animals (in several chapters); Man, His Body, External Members, Internal Members, Qualities of the Body; Diseases, Ulcers, and Wounds; External Senses; Internal Senses; Mind, The Will, The Affections; The Mechanic Arts (in several chapters); the Home and its Parts; Marriage; the Family; State and Civic Economy (in several chapters); Grammar, Rhetoric, Dialectic, and the various branches of knowledge; Ethics, Games; Death, Burial, Providence of God; the Angels. Care was taken that every grammatical structure should be presented so that a complete grammatical knowledge would be developed inductively by the skillful teacher. Each page gave in parallel column the Latin sentence and the vernacular equivalent, and the instruction dealt with material that, in its elementary form at least, was within the experience of the child. The chief defect of the book, one arising from a violation of a principle emphasized by Comenius, was the failure to repeat the words, the object being to use each word only once. Besides necessitating a vast amount of repetition and arousing the dislike of the pupil, it had the disadvantage of giving only one meaning to the word (though that was always the root signification), and only one construction. While the idea had been suggested by Ratich, and ineffectually executed independently by a Jesuit teacher, William Budæus, this was the first successful attempt at the construction of text-books according to modern and to psychological principles. And after the improvements made by Comenius himself, little further advance was made for a century and a half. The *Janua* was the work of three years' labor of the author, but in reality it was the product of the centuries since the opening of the Renaissance.

In 1633 Comenius published the *Vestibulum* (*Entrance Hall*) as an easy introduction to the *Gate*, which, though far simpler than the previous formal grammatical texts which were impossible of any mastery save a verbal one, had yet

proved too difficult for beginners. Later, additional texts were added. The *Atrium* was an expansion of the *Janua*, following the same plan, treating of the same subjects in greater detail, and also giving more attention to grammar. An accompanying grammar written in Latin was now to be used. In the final book of the series, the *Palace* or the *Thesaurus*, a summary of Latin literature, was given. Through selection of various portions of Cæsar, Sallust, Cicero, etc., the substance of this literature, especially as it dealt with subjects of interest from the Comenian point of view, could be given with the omission of much of the material objectionable to Comenius and certainly detrimental as used in the colloquies and school presentations of the times. As Comenius outlined his school plan, about six months should be given to the *Vestibulum*, one year to the *Janua*, about the same time to the *Atrium*, and three years to the *Palatium*.

The most remarkable and most successful of all the Comenian texts was an adaptation of the *Janua Linguarum*, the *Orbis Pictus*, published in 1657. In this text the method of dealing with objects instead of with mere symbols or words was carried to its logical conclusion in the introduction of the objects themselves by means of pictures. But the *Orbis Pictus Sensualium — The World of Sensible Things Pictured* — was of greater importance than merely the first illustrated text-book for children, for the method of dealing with things and of leading by inductive process to a generalized knowledge, was consistently carried out. While the text was substantially that of the *Janua*, each chapter was headed by a rather complicated picture in which the various objects were numbered with reference to specific lines in the text. A page of this remarkable text is reproduced as indicating in a concrete way, when compared with any of the Latin grammars then in ordinary use, all the revolutionary educational ideals of Comenius.

The Organization of Schools. — One other phase of



A School, 1.
is a Shop, in which
Young Wits
are faſhion'd to Virtue, and
it is diſtinguiſh'd into Forms.
The Maſter, 2.
ſitteth in a Chair, 3.
the Scholars, 4.
in Forms, 5.
he teacheth, they learn.
Some things
are writ down before them
with Chalk *on a* Table, 6.
Some ſit
at a Table, and write, 7.
he mendeth their Faults, 8.
Some ſtand and rehearſe things
committed to memory, 9.
Some talk together, 10. *and*
behave themſelves wantonly
and carelеſly;

Schola, 1.
eſt Officina, in quâ
Novelli Animi
formantur ad virtutem,
& diſtinguitur in *Claſſes.*
Præceptor, 2.
ſedet in *Cathedra,* 3.
Diſcipuli, 4.
in *Subſelliis,* 5.
ille docet, hi diſcunt.
Quædam
præſcribuntur illis
Cretâ in *Tabella,* 6.
Quidam ſedent
ad Menſam, & ſcribunt, 7.
ipſe corrigit, 8. Mendas.
Quidam ſtant, & recitant
mandata memoriæ, 9.
Quidam confabulantur, 10.
ac gerunt ſe petulantes,
& negligentes;

theſe

these educational ideas deserves brief mention, that is, the organization of schools. In this respect, as well as in those previously noticed, Comenius was quite two centuries ahead of his contemporaries. In his *Didactica Magna*, and more especially in the *Outline of the Pansophic School* for the Patak gymnasium, this subject is treated. As in the case of the text-books, so also in this latter writing, the gymnasium or secondary school alone is dealt with. But these indicate in detail the character of the work that would be included in other phases of the educational system. The work of the pansophic school, divided into seven classes, is indicated in detail. Over the door of each class is placed an inscription; over that of the first class, the *Vestibular*, "Let no one enter who cannot read"; over the second, the *Janual*, "Let no one enter who is ignorant of mathematics"; over the *Atrial*, "Let no one enter who cannot speak"; over the *Philosophical*, "Let no one ignorant of history enter here"; over the *Logical*, "Let no one enter who is ignorant of natural philosophy"; over the *Political*, "Let no one enter who cannot reason"; over the *Theological*, "Let no one enter who is irreligious."

Two grades of school were to precede the gymnasium: first, the infant school; second, the vernacular school. Previous to the writing of the *Didactica*, Comenius had written *The School of the Mother's Knee*, in which there is a remarkable foreshadowing of the kindergarten. The purpose of the book was to indicate to mothers how they could care for the early education of their own children. The pansophic ideals control even here, for the infant is to be instructed in history, geography, even metaphysics, as well as to be cared for physically and to be trained in games, sports, and manners. But by these high-sounding names Comenius meant a very feasible and desirable thing; namely, that the child's simple experience as to locality, time, and casual relationship of many events could be and should be made quite definite even

before the sixth year, and independent of formal instruction by means of books. The Vernacular School should comprise the period from the sixth to the twelfth years, and was rather a substitute for than a preliminary to the gymnasium, designed for those who could not obtain the higher education. As to method and subject-matter this school resembled the Latin School. The series of texts prepared for it by Comenius were in the Czech language and consequently never received wide circulation, even if they were ever printed. None at least have survived. Above the secondary school was to come the University, where every subject could be pursued as in the gymnasium. Above the University, reversing the use of terms as we now employ them, was the College of Light, an institution for scientific investigation of every subject, similar to the Solomon's House of the *New Atlantis*.

The Great Didactic. — As through all of the activities of this great leader ran the one dominant motive found in the pansophic ideal of the regeneration of society through the reorganization of knowledge, so throughout all his educational work ran the fundamental conception of education early worked out. Though Comenius was the first even approximately to apply in a formal way the inductive method to education, the foundation of his educational views and the basis of all his educational activities were very early determined and his later work was simply that of amplification. For though he has more than a hundred treatises and text-books to his credit, yet they are all summed up in his one great theoretical treatise which was one of his earliest educational writings. The *Didactic Magna* was completed by 1632, though not published in a Latin translation until 1657, and not printed in the language in which it was written until the middle of the nineteenth century. This work is certainly one of the most remarkable educational treatises ever composed. Though essays or books on didactics were among the most numerous

of the publications of those times, the *Great Didactic* is a remarkable variant from the ordinary type. Both its ideas, or principles, and its arrangement are strikingly modern. On the contrary, the form in which the ideas are expressed, as well as the particular interpretations of the method used, are thoroughly colored by the theological character of the age and by the professional training of the author. So sane and far-seeing are the precepts of this work that it may even yet be read with greater immediate profit to the teacher, sufficiently intelligent to avoid many minor errors, than the majority of contemporary educational writings. Some of the main principles of the *Didactic* have been mentioned, but so solid a foundation is laid for the educational development of the succeeding centuries, — as that foundation in turn rests upon the bed rock of the Renaissance and Reformation movement, — that it is quite worth while, in conclusion, to give the entire table of contents.

SUBJECTS OF THE CHAPTERS

I. Man is the highest, the most absolute, and the most excellent of things created.

II. The ultimate end of man is beyond this life.

III. This life is but a preparation for eternity.

IV. There are three stages in the preparation for eternity: to know one's self (and with one's self all things); to rule one's self; and to direct one's self to God.

V. The seeds of these three (learning, virtue, religion) are naturally implanted in us.

VI. If a man is to be produced, it is necessary that he be formed by education.

VII. A man can most easily be formed in early youth, and cannot be formed properly except at this age.

VIII. The young must be educated in common, and for this schools are necessary.

IX. All the young of both sexes should be sent to school

X. The instruction given in schools should be universal.

XI. Hitherto there have been no perfect schools.

XII. It is possible to reform schools.

XIII. The basis of school reform must be exact order in all things.

XIV. The exact order of instruction must be borrowed from nature.

XV. The basis of the prolongation of life.

XVI. The universal requirements of teaching and of learning; that is to say, a method of teaching and of learning with such certainty that the desired result must of necessity follow.

XVII. The principles of facility in teaching and in learning.

XVIII. The principles of thoroughness in teaching and in learning.

XIX. The principles of conciseness and rapidity in teaching.

XX. The method of the sciences, specifically.

XXI. The method of the arts.

XXII. The method of languages.

XXIII. The method of morals.

XXIV. The method of instilling piety.

XXV. If we wish to reform schools in accordance with the laws of true Christianity, we must remove from them books written by pagans, or, at any rate, must use them with more caution than hitherto.

XXVI. Of school discipline.

XXVII. Of the fourfold division of schools, based on age and acquirements.

XXVIII. Sketch of the Mother-School.

XXIX. Sketch of the Vernacular School.

XXX. Sketch of the Latin School.

XXXI. Of the University, of traveling students, of the College of Light.

XXXII. Of the universal and perfect order of instruction.

XXXIII. Of the things requisite before this universal method can be put into practice.

Effects of Sense-realism on Schools. — At any time, the response made to educational theory by the concrete practices of the school is necessarily slow and indirect. For those who formulate the advanced theory are seldom those who control the schools; the practical administrator is ever

loath to be considered a theorist, that is, one recognizing a new theory instead of practicing an old one; and the teacher is ever loath to add new burdens or form new habits, in learning to do old things in a new way.

On the other hand, Ratke, Comenius, even Bacon, were but exponents of a thought movement that was affecting many; they were leaders in the formulation of the new thought rather than originators of it. As with these men, so with the other leaders of advanced thought of the seventeenth century,—their work was performed outside of the university, which had little sympathy with the new thought. Neither Descartes, Hobbes, Locke, or Leibnitz of the philosophers, nor Harvey and Boyle of the scientists, nor Bacon as representative of both philosophy and science, was in close contact with the universities. So it was in the secondary schools and in independent institutions that the new ideas were realized. In 1619 the first academy of natural science was founded at Rostock. Under Frederick the Great (r. 1740–1786) the Berlin Academy became a powerful exponent of the new thought.

After the close of the Thirty Years' War (1648), the old academies for the nobles (*Ritterakademien*, see p. 389) again became influential, and now as exponents of the new ideas, rationalistic and practical, as opposed to the scholastic formalism of university and gymnasium. This, however, was a foreign culture which did not affect at all the masses of the people. Here realism found its first exposition, based more upon the social-realism of Montaigne and the popular ideals of the French aristocracy, then dominant throughout Europe, than upon the scientific realism of Bacon and Comenius.

From the middle of the seventeenth century, the text-books of Comenius had come into common use in the gymnasia of the German cities, but rather as aids to Latin study than for their scientific content. The first schools to embody the realism of Comenius, emphasizing more the religious than

the scientific side, were those of the pietistic movement as it centered around Hermann Francke (1663–1727) and Spener (1635–1700). Pietism was a reaction quite as much against the profligacy and extravagance of rationalism as typified in the *ritterakademien* as against the formalism of the classical schools. But the rationalistic and the pietistic school were at one in their opposition to the dominant classicism and formalism, and in their advocacy of the realistic studies and the use of the vernacular. Beginning in 1692 Francke established, at Halle, a group of educational and charitable institutions of very wide scope and of extended influence. With a constituency drawn wholly from the middle and lower class people, — a large orphan asylum was a part of the institution, — Francke aimed to combine a practical preparation for life and a religious influence with a school training necessarily strong in the realistic studies. His achievement was a demonstration of Comenian ideals; a combination of Christianity and practical training, with formal school work. A seminary for the training of teachers, instituted as a part of his general foundations, assisted materially in the spread of his ideas in many schools, especially those of Prussia, both of old and new foundations.

The Real Schools (*Real-schulen*) of Germany, which embody most completely the realistic educational movement, date from 1747, in which year Hecker, a pupil of Francke, established the *œkonomisch-mathematische Real-schule* at Berlin. The curriculum of this school included the German, French, and Latin languages, writing, drawing, history, geography, geometry, arithmetic, mechanics, architecture, religion, and ethics. Within a comparatively short time the leading commercial cities of the German countries established similar schools. During the later part of the century, under the influence of the "naturalistic" movement (Chapter X), these schools were incorporated as a component part of the German school system.

The Academies in England. — In England the introduction of the "real studies" was bound up with the history of the "academies" as those institutions were developed by the nonconforming churches. The beginning of this movement is connected with the humanistic realism of Milton, who styled the institution described in his *Tractate* an academy. With the downfall of the Puritan protectorate and the restoration of the Stuart monarchy, the dissenting clergymen, some two thousand in all, were expelled from their parishes (1662), and shortly afterward the dissenters were excluded from the public schools and the universities. This gave both a teaching staff and a constituency to a new type of educational institutions, which for a time had but an indefinite organization and unsubstantial existence, but which, after the toleration act of 1689, became a definite part of the English educational scheme. Though these, as well as all other educational institutions of England, had only an ecclesiastical and private support, they continued to perform an ever widening function in the educational life of the people, until, with the disappearance of religious disabilities, they became, as a type, indistinguishable in the multiplicity of secondary schools during the early nineteenth century.

As was to be expected, the founders of these institutions of the seventeenth and eighteenth centuries had little sympathy with the narrow and restricted education that produced their illiberal persecutors; hence, the new institutions provided for a much broader training through a curriculum that included many of the new "real" studies. Preparation for the ministry was yet a prominent, though by no means the exclusive, purpose of these schools, hence the classical languages formed a prominent part if not the basal part of the course of study. To these were added a variety of subjects, varying with the institution, including French, Italian, Hebrew, logic, rhetoric, ethics, metaphysics, history, economics, oratory, theology, natural philosophy, anatomy, geography, geometry, algebra, sur

veying, trigonometry, conic sections, celestial mechanics, and even shorthand. One subject that was given especial emphasis in all of these institutions was that of English, and the instruction in all of the subjects came to be given in the vernacular. Of one academy it is specified that in addition to the usual curriculum "all the classes were exercised at times in land surveying, dialling, making almanacks, and dissecting animals." No more striking evidences of the realistic tendency could be found in the theoretical discussions of the subject.

Such institutions took the place of both secondary schools and universities for the nonconformists, and offered a more direct preparation for the practical occupations of life than did the classical public schools. For the Church, the university, and the State, however, the old type of institutions yet served exclusively. The influence of the writings of John Locke on education (Chapter IX) served to further the interest in the new educational tendency, and his *Thoughts* became almost a handbook or a charter for the academies.

In America. — With the growth of the minor dissenting bodies in the American colonies a similar, though until the middle of the eighteenth century a more rudimentary, institution grew up. These bodies were especially strong in the middle colonies, and there these new institutions found a home. Even in New England the Latin grammar schools began to make provision, from no theoretical educational reasons, for the practical economic interests of the people. In most of the seaport towns of all the colonies, branches of practical mathematics, especially surveying and navigation, were introduced even in the late seventeenth, certainly by the middle of the eighteenth century. Not until this later period, however, was a typical "real-school" introduced and the term "academy" used. This was the "Academy and Charitable School of Pennsylvania," later the University of Pennsylvania, which was suggested by Benjamin Franklin in 1743 and opened in 1751. Three schools were included in this academy, a Latin,

an English, and a mathematical. Franklin in his writings, which exalted practical economics into a philosophy of life for a new people, did much to further a scheme of education which had much in common with the educational theories of the sense-realists. While the philosophical basis might have been quite different, in its concrete embodiment it was almost identical with the "real-school" of Germany. After the Revolutionary War, the academies became the typical educational institutions of the American states. By this time several other momentous forces, besides the realistic educational philosophy, were at work to produce revolutionary changes in education.

The Universities responded much less quickly than the secondary institutions to the new educational ideas. The theological-classical scholasticism controlled the German universities throughout the seventeenth century; but in 1094 the University of Halle was founded chiefly as a protest against the narrowness of the old. Halle is considered the first modern university, for here first were the "real" subjects taught, with the new methods and in the modern tongue. Francke, mentioned in connection with the real-schools, and Thomasius, who had been expelled from Leipzig because of their too liberal ideas, made Halle the center of the new influence. The custom of using German in the university lecture room, introduced by Thomasius, who also published the first German magazine, soon spread, as did also the university teaching of the natural sciences and a more liberal philosophy. In fact, the German university ideal of "freedom of teaching and freedom of study" first found its embodiment in the foundation of Halle. In 1737 the University of Göttingen became a second center of these same influences. By the close of the century the conquest of all the universities, at least of Protestant Germany, was accomplished.

The conservative English universities responded much less quickly and much less thoroughly to the new influences

During the professorship of Isaac Newton (1669–1702) and the headmastership of Richard Bentley (1740–1742), Cambridge was given the strong mathematical bent which it has ever retained, and the mathematical and physical sciences were fostered. During the eighteenth century a number of regius professorships in history and the sciences were founded by the Georges. But there was no such renovation of the university by the new spirit, as in Germany, until late in the nineteenth century.

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TOPICAL QUESTIONS FOR FURTHER INVESTIGATION

1. What were the views of Erasmus concerning the selection, method of study, and the use or purpose of literary material for the schoolroom?

2. Write an analysis of Milton's *Tractate on Education*. To what extent and in what respects does it represent a departure from the dominant education of the schools? What criticism can you offer on Milton's scheme?

3. To what extent does Montaigne in his writings represent the ideals of the narrow humanists?

4. To what extent does the idea of education through contact with the world and through travel find justification or condemnation in the literature on education?

5. What descriptions or discussions of this same topic can you find in literature in general?

6. What are Montaigne's arguments against the narrow humanistic education dominant in his times?

7. Compare the conception of education held by Montaigne with that held by Ascham.

8. In what respects does Montaigne's view of education differ from that of Milton? Of Rabelais? Of Erasmus? Of Comenius? Of Locke? Of Rousseau?

9. To what extent are Montaigne's views of education borrowed from those held by Greeks or Romans?

10. Give an account of the educational views and works of Peter Ramus Of Ludovico Vives. Of Sir William Petty. Of Daniel Defoe. Of Samuel Hartlib. Of Charles Hoole.

11. Make a study of the "pansophic" ideas of the seventeenth century

12. In what respects do the views of Richard Mulcaster coincide with those of the realists? Give an account of the educational work and writings of Mulcaster.

13. What were the forces opposing and what those favoring the introduction of the vernacular into educational work in any one country?

14. What were the arguments for the educational use of the vernacular advanced by its early advocates, such as Mulcaster, Ratich, the Port Royalists, etc.?

15. What were the views concerning learning and education expressed by Bacon in his *Advancement of Learning?*

16. What exposition of the new method does Bacon give in the *Novum Organum?*

17. To what extent was the inductive method used by Bacon's contemporaries in their investigations?

18. To what extent does the development of any one or all of the natural sciences during the sixteenth and seventeenth centuries throw light upon the educational development?

19. What were the merits and defects of the educational work of Ratich?

20. In what respects were his views, as expressed in his writings, novel and reformatory?

21. In what respects are the educational activities of Comenius representative of the Renaissance, the Reformation, and the seventeenth-century scientific tendencies in thought?

22. What new principles are embodied in the text-books of Comenius?

23. How influential were these new text-books?

24. To what extent does Comenius yet hold to the mediæval educational ideas of the nature of the various subjects of the curriculum, the necessity of scholastic discipline, etc.?

25. To what extent does Comenius hold views concerning education that are now accepted?

26. Trace the development of the realistic education in the real-schools of Germany. In the academies of England. In the academies of the United States.

27. Give an account of Francke's educational work at Halle.

28. Trace the development of the realistic or scientific spirit in the universities of any country.

CHAPTER IX

THE DISCIPLINARY CONCEPTION OF EDUCATION. JOHN LOCKE

FACTORS CONTRIBUTING TO THE FORMATION OF THE DISCIPLINARY CONCEPTION. — With the Reformation, Latin ceased to be the language of religion and of the clergy; similarly, during the later seventeenth century, it ceased to be the exclusive language of the universities, of the schools, and of learning; even before this time it had been superseded by French as the language of diplomacy and of the courts. When, with the development of the vernacular literatures, it ceased to be the language of culture and of the humanities as well, Latin could no longer dominate the schools upon the same basis and for the same reasons that it had done hitherto. But by the seventeenth century the linguistic and literary curriculum had become traditional, with the authority of the learning of two centuries behind it and with a scholastic procedure which in details of method and of curriculum, in the entire technique of the schoolroom, had never been equaled by any previous system of educational practice. In fact, unless we consider as a distinct type the further improvement this linguistic and literary schooling received through two centuries of additional practice, it has had no equal since. Now perfection in the technique of schoolroom procedure, in details of subject-matter, organization, and method, is no justification for a system of educational practice; yet, since it has behind it to give it stability, both the force of tradition and the most tenacious of any professional

loyalty and conservatism, it is the strongest influence working for such a system.

Consequently, since this narrow humanistic education no longer had any direct connection with the practical demands of the times and no longer offered the sole approach to a knowledge of human achievement and thought, a new theory must be found to justify its perpetuation. This new theory was, in a word, that the important thing in education was not the thing learned, but the process of learning. In respect to this principle, the new education was but a revival of the formalism of mediæval scholasticism. To the elaboration of this *disciplinary conception* of education a number of factors contributed. These general social changes just mentioned, which brought about the opportunity and need for this new theory, were in themselves the most important of these factors. These changes not only occasioned the formation of the theory of the old and the dominant; they also introduced the new practice of the realistic education which now began to appropriate the argument advanced, at an earlier age, for the broad humanistic education. Realism emphasized even more strongly than had the early Renaissance thought with reference to the old scholasticism, that it was the thing learned, not the process of learning that was important. The narrow humanistic education now adopted, in addition to the arguments held as peculiar merits of its own, all those formerly used for the scholastic education.

In the second place, the disciplinary education, as it represented the continuation of the narrow humanistic education, yet retained the almost undivided support of those who viewed education from the religious standpoint. As is evidenced in the attitude of the Church toward most of the leaders of the realistic tendency, notably Descartes and Bacon, that movement was looked upon as irreligious and atheistic. In his personal views Comenius was rather an exception; though in the attacks and persecutions which he suffered from his

co-religionists, on account of his supposed heretical tendencies, he was entirely typical. This opposition became one phase of the conflict between theology and science. But from a yet more general reason, and that a pedagogical one, the religious view supported the disciplinary conception. In fact, since it looked upon education as one process of eradicating the essentially evil character of human nature, the religious view of education on its pedagogical side was the disciplinary one. On the moral side, then, religious thought furnished the theory of the disciplinary education.

On the psychological side, so far as that entered into the educational thought of the times, the disciplinary conception received the support of the current traditional psychology. This was the old Aristotelian faculty psychology, with its mediæval implications, which demanded a training of the various faculties of the mind by appropriate disciplines formulated into schoolroom procedures. No subject afforded better facilities for this than the formal side of language study, unless it was the mathematical branches. To these, consequently, greater importance was now attached than formerly. Even the new psychology of Bacon and Locke, so far as their theory of knowledge formulated a psychology, contributed to the prevailing disciplinary view. At least Locke made it so contribute as will be seen subsequently. But it must ever be borne in mind that Locke's educational theories are not always consistent with his psychological theories. While the doctrine of innate ideas was rejected by these men in favor of experience, training in sense perception did not supersede nor make unnecessary the training of the higher *faculties*. In either case, so far as the popular view went, the training was to be a "discipline."

MEANING OF EDUCATION AS A DISCIPLINE. — As previously stated, the essence of the disciplinary conception of education can be given in a few words; namely, that it is

the process of learning rather than the thing learned that is the important and determining thing in education. John Locke, who gives probably the best presentation of this conception, sums up his views in one place as follows: —

"The great work of a governor is to fashion the carriage and to form the mind, to settle in his pupil good habits and the principles of virtue and wisdom, to give him little by little a view of mankind and work him into a love and imitation of what is excellent and praiseworthy; and in the prosecution of it to give him vigor, activity, and industry. The studies which he sets him upon are but, as it were, the exercise of his faculties and employment of his time; to keep him from sauntering and idleness; to teach him application and accustom him to take pains and to give him some little taste of what his own industry must perfect." [1]

As indicated by the analysis of the elements that first produced this view, the disciplinary conception takes a great variety of forms. But substantially they unite on the one point, namely, that a particular activity or experience, especially of an intellectual character, if well selected, produces a power or ability out of all proportion to the expenditure of energy therein; a power that will be serviceable in most dissimilar experiences or activities, that will be available in every situation, that will be applicable to the solution of problems presented by any subject, however remote in kind from the one furnishing the occasion for the original disciplinary experience. More specifically the theory posited that one or two subjects, thoroughly taught and mastered, were of much greater educational value than five or six subjects demanding the same amount of time and energy. The disciplinarians believed that those subjects which, through the generality of their principles, such as mathematics and logic, or through the formal nature of their content and arrangement, such as the classical languages, furnished a formal training for the

[1] *Thoughts on Education*, Par. 94, Quick edition, pp. 75-76.

various "faculties" of the mind, were of supreme importance educationally. This value belonged to such subjects irrespective of their relation to life or of their final mastery or use by the pupil. It was further implied, so far as the period of complete dominance of this theory was concerned, that these subjects were peculiarly adapted to the development of the memory and the reason, and that these "powers of the mind" were preëminently the ones demanded for success in any walk of life. The special demands which the various callings or needs of life make upon education were to receive no special consideration; for all were to be met by the simple turning of the ability generated by the formal training of the school into the desired channel. Nor were the special aptitudes or inaptitudes of the pupils given any consideration; for since these studies with their appropriate discipline furnished the best possible preparation for every obligation that life made upon education, those pupils that were unable to meet the demands of such a training were *ipso facto* incapable of fulfilling any of these higher offices or functions in life or of meeting the requirements of any of its greater opportunities.

The nature as well as the force of this conception of education is best seen by placing it in opposition to an equally one-sided view of education, but one that, on the contrary, places the whole emphasis on the thing learned rather than upon the process of learning. A writer, Fouillée,[1] much more modern than those who stand for this conception in the earlier period of its ascendency, in his argument for the disciplinary education of the classics as opposed to the content or practical education of the modern sciences, contrasts these views as follows: —

"Huxley proposes to make the natural and physical sciences the basis of education. Spencer, in his turn, by a kind

[1] *Education from the National Standpoint*, pp. 36, 37.

of idolatry of science which is widespread in these days, makes of positive science almost exclusively the subject for youth, under the pretext that, in this life, geometry is necessary for the construction of bridges and railways, and that in every definite trade, even in poetry, we must have *knowledge*. How conclusive is poetry as an instance! Is a Virgil or a Racine made by learning rules of versification? The scientific man is not made by teaching him science, for true science, like poetry, is invention. We can learn to build a railway by rule of thumb, but those who invented railways did so only by the force of the intellectual power they had acquired, and not by the force of the mere knowledge they had received; it is therefore intellectual force that we must aim at developing. And then returns the question: Is the best means of strengthening and developing the intellect of our youth, to load the memory with the results of modern science, or is it to teach them to reason, to imagine, to combine, to divine, to know beforehand what *ought* to be true from an innate sense of order and harmony, of the simple and the fruitful, — a sense near akin to that of the beautiful? And besides, are youths educated to be engineers or poets? Education is not an apprenticeship to a trade, it is the culture of moral and intellectual forces in the individual and in the race."

On the other hand, Huxley answers this argument by showing in somewhat satirical language that the sciences could be so arranged and so taught as to give a disciplinary training similar to that given in his times in the public schools. Then he says: —

"It is wonderful how close a parallel to classical training could be made out of that palæontology to which I refer. In the first place I could get up an osteological primer so arid, so pedantic in its terminology, so altogether distasteful to the youthful mind, as to beat the recent famous production of the headmasters out of the field in all these excellencies. Next, I could exercise my boys upon easy fossils, and bring out all their powers of memory and all their ingenuity in the application of my osteo-grammatical rules to the interpretation, or construing, of those fragments. To those who had reached the higher classes, I might supply odd bones to be

built up into animals, giving great honor and reward to him who succeeded in fabricating monsters most entirely in accordance with the rules. That would answer to verse making and essay writing in the dead language. To be sure, if a great comparative anatomist were to look at these fabrications he might shake his head, or laugh. But what then? Would such a catastrophe destroy the parallel? What, think you, would Cicero, or Horace, say to the production of the best sixth form going? And would not Terence stop his ears and run out if he could be present at an English performance of his own plays? Would Hamlet, in the mouths of a set of French actors, who should insist on pronouncing English after the fashion of their own tongue, be more hideously ridiculous?"

So persistent is this narrow disciplinary view that even when the old rational psychology, based upon introspective analysis, begins to give way or to be supplemented by a conception of the mind based upon a study of its development, education is yet viewed as a process of developing the "powers" or "faculties" of the mind through appropriate discipline. This is seen in the case of Pestalozzi, who first represents this view in practical educational work (p. 614). A few sentences on the appropriate subject-matter of education from a recent writer, Tarver, who discusses the entire question of English education from this point of view, are illustrative. "My claim for Latin, as an Englishman and a foster parent [teacher], is simply that it would be impossible to devise for English boys a better teaching instrument. . . . The acquisition of a language is educationally of no importance; what is important is the process of acquiring it. . . . The one great merit of Latin as a teaching instrument is its tremendous difficulty."

This is not only the view of the schoolmaster, but it has been held generally by all educated people. Professor Horne quotes from Sir William Hamilton a sentence which is typical of the somewhat milder view of the public. "The great

problem in education," said Hamilton, "is how to induce the pupil to go through with a course of exertion, in its results good and even agreeable, but immediately and in itself irksome."

While this conception of education still prevails very generally and is apt to continue, yet we are now chiefly concerned in its historical presentation, especially by the great English philosopher.

JOHN LOCKE AS A REPRESENTATIVE OF THE DISCIPLINARY EDUCATION.— It would be a mistake to suppose, from the heading of this chapter, that the educational ideas of John Locke (1632–1704) can be completely summed up under this conception. Locke held the idea that education was a discipline, and his view strongly reënforced the prevalent one. But the "discipline" of the philosopher was a much broader one than the discipline of the schoolmasters. Locke's one great passion in life, the thought emphasized in his philosophical writings as the aim of intellectual endeavor, was the love of truth. The guide to the attainment of truth and to every activity in life was reason; but the mind was capable of attaining to truth and of formulating it only when educated to this end. This education consisted in a rigid discipline. In his *Essay concerning Human Understanding* Locke formulated the Baconian philosophy or more especially the theory of knowledge, that of empiricism, that has remained the dominant philosophy of the English thought-world to the present time; this theory was that all knowledge comes from the perception of the senses and the "perception of the intellect," that is, from experience. The idea that all knowledge comes primarily through the senses and is built up according to the inductive process, as formulated by Bacon, was elaborated by Locke rather into a test for distinguishing truth from falsity than into a theory explaining the origin of all knowledge. With his followers of the eighteenth century it became both.

The rational psychology, or explanation of the manner in which the mind works, becomes probably incidentally with Locke, certainly directly with his followers, an explanation of how the mind develops as well. Though it is impossible to enter into details here, it must be borne in mind that Locke's philosophical and psychological views do not always accord with his views on education. The one fundamental thing that makes Locke a representative of the disciplinary education throughout is his idea of the human mind as a mere blank to begin with that has its virtues and powers worked into it from the outside through its formation of habits. In respect to many other important points, as will be seen, Locke agrees with the naturalists who, opposing Locke on this point, held that all such powers came as the development of powers from within, according to a wholly natural process. Development, according to Locke, came only through the formation of habit through discipline.

Our main interest, however, is in the educational theory of Locke, not in his philosophy. In his *Essay* and more especially in his *Conduct of the Understanding*, he shows how this type of mind can be developed, that is, through such a training or discipline as will strengthen all its powers. This is not to be done merely by study and reading, but more largely by reflection and meditation. These views must be taken into account in the examination of his *Thoughts concerning Education* (1693), which is the one work by which his educational ideas are usually judged. It is entirely one-sided to formulate Locke's educational ideas from this one treatise, the more so since it contains advice written to a friend concerning the education of his own sons and it is specifically stated by Locke that much of it has only this special application. This is particularly true of that portion of it which deals with the intellectual aspect of education which is more broadly treated in Locke's other works.

As the most important and influential of all English writers

on the subject of education, or, at least as ranking with Ascham and Spencer, the main thoughts of Locke's treatise deserve presentation altogether aside from the connection they may have with any general tendency. However, it is just these fundamental conceptions, as distinguished from the many valuable suggestions and ideas scattered throughout the treatise, that give Locke his relation to the disciplinarians. It is the consideration of isolated ideas and general remarks that leads to his classification with the realists, or humanists, or naturalists, as is done by so many students of the subject.

The aspects of education according to Locke are three: physical, moral, intellectual. The aims are, correspondingly, vigor of body, virtue, and knowledge. The first is fundamental as a basis. This being provided for, the aims of education are, as he states in another place, virtue, wisdom, breeding and learning in the order of their importance.

Physical Education. —"A sound mind in a sound body is a short but full description of a happy state in this world. He that has these two, has little more to wish for; and he that wants either of them, will be but little the better for anything else." These are the opening sentences of the *Thoughts*, the first thirty paragraphs of which are given to the discussion of physical education — one of the first and yet one of the sanest of such treatises. The principle underlying it all, the scanty and loose clothing, the hard beds, the open air, the simple even rigid diet, is that of the hardening process, — rigid discipline. "Thus I have done," he says in conclusion, "with what concerns the Body and Health, which reduces itself to these few and easy observable Rules: Plenty of *Open Air*, *Exercise*, and *Sleep*, plain *Diet*, no *Wine* or *Strong Drink* and very little or no *Physick*, not too warm and strait *Clothing*, especially the *Head* and *Feet* kept cold, and the *Feet* often used to cold *Water* and exposed to *Wet*."

Moral Education. — One of the most striking of Locke's positions, as well as one of the soundest of them, is the

clear distinction he ever holds in mind between education and instruction. This explains the divergence between Locke's views and those of the educators of the prevailing disciplinary school. With the latter, education came to be identified with instruction, as it in turn became a rigid and formal discipline. With Locke it is education as a whole that is a discipline. With instruction as merely the method of intellectual education, — a method less rigid and exact than with the prevailing Schoolmen, because affecting only one aspect of education and that of secondary importance, — the primary object of education is the formation of character.

"'Tis *Virtue* then, direct *Virtue*, which is the hard and valuable part to be aimed at in Education, and not a forward Pertness, or any little Arts of Shifting. All other Considerations and Accomplishments should give way and be postponed to this. This is the solid and substantial Good which Tutors should not only read, lecture, and talk of, but the Labor and Art of Education should furnish the Mind with, and fasten there, and never cease till the young man had a true Relish of it, and placed his Strength, his Glory, and his Pleasure in it."

But it is rather the manner in which this great end is to be accomplished that indicates again how, fundamentally, Locke holds throughout to the disciplinary conception of education.

"As the strength of the Body," he remarks in beginning his discussion of moral education, "lies chiefly in being able to endure Hardships, so also does that of the Mind, and the great Principle and Foundation of all Virtue and Worth is placed in this: That a Man is able to *deny himself* his own desires, cross his own inclinations and purely follow what Reason directs as best, tho' the appetite lean the other way. . . . It seems plain to me that the Principle of all Virtue and Excellency lies in the Power of denying ourselves the Satisfaction of our own Desires, where Reason does not authorize them. This Power is to be got and improved by Custom,

made easy and familiar by an early Practice. If, therefore, I might be heard, I would advise that contrary to the ordinary way, children should be used to submit their Desires and go without their Longings, even from their very Cradles. The first thing they should learn to know should be that they were not to have anything because it pleased them, but because it was thought fit for them."

So here again education at basis is a discipline. Virtue is to be obtained by the formation of good habits through a long discipline of the desires. How erroneous it is to class Locke with Rousseau is seen in this most fundamental of all his educational principles. It is true that the process is to be made as pleasurable as possible for the child, and great severity, especially as regards corporal punishment, is to be avoided; but the secret of all education is to control the natural desires and instincts by thwarting them and forming the habit of their control, and not at all by following them implicitly as with the naturalists. It is in this respect that, later, Rousseau says, "Form no habits." But, on the contrary, Locke says, "It is not that the Performance of a single Act is in itself to be deprecated perhaps; but the Formation of *Habit* is all-important." He even grants that it possesses greater importance in education than reason. "Habits," he says, "work more constantly and with greater facility than Reason, which, when we have most need of it, is seldom fairly consulted and more rarely obeyed."

This education through moral discipline is to be carried out by emphasizing authority, either that of the parent or master, the latter preferably a tutor. However, Locke deprecates the severity and the arbitrariness with which such authority was customarily exercised. The greater part of the *Thoughts* is devoted to a discussion of the various virtues,—justice, liberality, fortitude, truthfulness, honesty, industry, and good breeding in general; to the methods of developing these things, authority, punishment, rewards, praise; and to

the appropriate time of each. The substance of all, however, is that moral education, as physical, is a hardening process, — the schooling of desires to the control of reason through habits formed by constant denial of natural wants. Let one illustration suffice: —

"But since the great Foundation of Fear in Children is Pain, the way to harden and fortify Children against Fear and Danger is to accustom them to suffer Pain. This 'tis possible will be thought, by kind Parents, a very unnatural thing towards their Children; and by most, unreasonable, to endeavour to reconcile any one to the Sense of Pain, by bringing it upon him. 'Twill be said: 'It may perhaps give the Child an Aversion for him that makes him suffer; but can never recommend to him Suffering itself. This is a strange Method. You will not have Children whipp'd and punish'd for their Faults, but you would have them tormented for doing well, or for tormenting sake.' I doubt not but such Objections as these will be made, and I shall be thought inconsistent with myself, or fantastical, in proposing it. I confess it is a thing to be managed with great Discretion, and therefore it falls not out amiss, that it will not be receiv'd or relish'd, but by those who consider well, and look into the Reason of Things. I would not have Children much beaten for their Faults, because I would not have them think bodily Pain the greatest Punishment: And I would have them, when they do well, be sometimes put in Pain, for the same Reason, that they might be accustom'd to bear it, without looking on it as the greatest Evil. How much Education may reconcile young People to Pain and Sufferance, the Examples of *Sparta* do sufficiently shew: And they who have once brought themselves not to think bodily Pain the greatest of Evils, or that which they ought to stand most in fear of, have made no small Advance towards Virtue. But I am not so foolish to propose the *Lacedæmonian* Discipline in our Age or Constitution. But yet I do say, that inuring Children gently to suffer some Degrees of Pain without shrinking, is a way to gain Firmness to their Minds, and lay a Foundation for Courage and Resolution in the future Part of their Lives."[1]

[1] *Thoughts*, par. 115; Quick edition, pp. 98–100.

INTELLECTUAL EDUCATION. — When we come to this phase of Locke's ideas, the fundamental principle is not so clearly revealed, for there is somewhat of a conflict between the views expressed in the *Thoughts* and those in Locke's other writings. But here again, if fundamental ideas alone are considered, the discrepancy disappears. This portion of the *Thoughts* is devoted for the most part to a consideration of the materials of study, concerning which Locke agrees in most points with the sense-realists and the encyclopedists Even here, however, the disciplinary view is fundamental as will be seen in this conclusion: —

"*Learning* must be had, but in the second Place, as subservient only to greater Qualities. Seek out somebody that may know how discreetly to frame his Manners: Place him in Hands where you may, as much as possible, secure his Innocence, cherish and nurse up the good, and gently correct and weed out any bad Inclinations, and settle in him good Habits. This is the main Point, and this being provided for, *Learning* may be had into the Bargain, and that, as I think, at a very easy rate, by Methods that may be thought on."

It is when we turn to Locke's philosophical writings, more especially his *Conduct of the Understanding*, that his conception of the intellectual aspect of education is clearly revealed. Long ago this work was termed a "treatise on the moral *discipline* of the intellect." In it is best seen his conception of education as an intellectual discipline, which is of far wider scope than the prevailing discipline of formal methods of linguistic studies. Here also, in stating his fundamental principle, is given the justification for his encyclopedism — together with its great difference from that of Comenius.

"The business of education is not to make the young perfect in any one of the sciences, but so to open and dispose their minds as may best make them capable of any, when they shall apply themselves to it. . . . It is therefore to give them this freedom that I think they should be made to look into

all sorts of knowledge and exercise their understanding in so wide a variety or stock of knowledge. But I do not propose it as a variety and stock of knowledge but a variety and freedom of thinking; as an increase of the powers and activities of the mind, not as an enlargement of its possessions."

The entire treatise is devoted to a reiteration of the idea that intellectual education is a formation of habit of thought through exercise and discipline.

"The faculties of our souls are improved and made useful to us just after the same manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other manual operation dexterously and with ease, let him have ever so much vigor and activity, suppleness and address naturally, yet nobody expects this from him unless he has been used to it, and has employed time and pains in fashioning and forming his hand or outward parts to these motions. Just so it is in the mind; would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connection of ideas and following them in train."

Respecting the choice of subject-matter appropriate to this end, he continues in the manner characteristic of this entire school of educational thought:—

"Nothing does this better than mathematics, which therefore I think should be taught all those who have the time and opportunity, *not so much to make them mathematicians, as to make them reasonable creatures;* for though we call ourselves so, because we are born to it if we please, yet we may truly say nature gives us but the seeds of it. We are born to be, if we please, rational creatures, but it is use and exercise that makes us so, and we are indeed so no further than industry and application has carried us. . . . I have mentioned mathematics as a way to settle in the mind a habit of reasoning closely and in train; not that I think it necessary that all men should be deep mathematicians, but that having got the way of reasoning, which that study necessarily brings the mind to, they might be able to transfer it to other parts of knowledge as they shall have occasion."

Locke as a Representative of Realism. — It must be admitted that this classification of Locke is not the usual educational one; rather is he most frequently grouped with Montaigne, Bacon and Comenius, or with Rousseau. While Locke had much in common with each of these men, it is here maintained that this similarity was in regard to views that were incidental or subordinate to the fundamental conception explained above. With Montaigne the points of agreement are very numerous. Both objected to the greater part of the existing education; both held that the formation of character for life in the existing society — that is, virtue as opposed to mere intellectual training — was the real aim of education; both preferred the education by a tutor to that of the school; both recommended travel as an important constituent means; both emphasized the importance of physical education; both objected to learning "by heart"; both held that Latin was to form a part of the curriculum because a knowledge of this language was yet a part of the equipment of a gentleman of the world; both held that education should be practical and fit for the real life of the time. And yet there was a wide divergence in their conception of what constituted virtue and the demands of real life and a yet wider divergence, amounting to a total disagreement, respecting the fundamental character of the process by which these aims were to be reached. And this divergence, whether in regard to the physical, the moral, or the intellectual aspect of education, is that which constitutes Locke a "disciplinarian" in his conception of education. The point wherein Locke most closely approximates the views of Montaigne is the one place where he clings to authority and makes education a discipline dependent upon that authority. As Professor Davidson remarks, "In education he replaces the authority of God by the authority of society, the clergy by the landed gentry."

There is an agreement with the sense-realists on both the content and the method side. But as previously explained, the

encyclopedism of Locke appears only where he is considering the needs of his one particular pupil, as a prospective member of the English gentry, and even there this wide range of subjects was to be used largely as a discipline. There is hardly any mention of the natural sciences, as held fundamental by Bacon and as introduced by Comenius into the curriculum. The general view of Locke concerning the subjects of study would place him as the best representative of the disciplinary conception, in that it was the process of learning and not the thing learned that was of importance. With regard to this process of learning, or method, there was much more in common with Bacon and Comenius; but with these latter it was decidedly the thing learned rather than the process that determined their conception of education. In his realistic or empirical philosophy Locke but formulated on the subjective side what Bacon had previously formulated objectively. Knowledge in its elementary form comes altogether through the senses and must so be acquired, though the processes of observation must quickly be supplemented by higher ones. "Children may be taught anything which falls under senses, especially their sight, as far as their memories only are exercised." The development from such a basis and the simplest forms of knowledge to the most complex forms of knowledge is by observance of the inductive method. Much of the *Conduct of the Understanding* is devoted to an elaboration of this point. "In learning anything, as little should be proposed to the mind at once as is possible; and that being understood and fully mastered, to proceed to the next adjoining part yet unknown."

And again in connection with the same subject (intellectual "despondency") he says:—

"Things that in a remote and confused view seem very obscure must be approached by gentle and regular steps; and what is most visible, easy, and obvious in them, first

considered. Reduce them into their distinct parts; and then in their due order bring all that should be known concerning every one of these parts into plain and simple questions; and then what was thought obscure, perplexed, and too hard for our weak parts, will lay itself open to the understanding in a fair view, and let the mind into that which before it was awed with, and kept at a distance from as wholly mysterious.

The surest way for a learner in this, as in all other cases, is not to advance by jumps and large strides; let that which he sets himself to learn next be indeed the next; *i.e.* as nearly conjoined with what he knows already as is possible; let it be distinct but not remote from it; let it be new, and what he did not know before, that the understanding may advance; but let it be as little at once as may be, that its advances may be clear and sure. All the ground that it gets this way it will hold. This distinct, gradual growth in knowledge is firm and sure; it carries its own light with it in every step of its progression in an easy and orderly train; than which there is nothing of more use to the understanding. And though this perhaps may seem a very slow and lingering way to knowledge, yet I dare confidently affirm that whoever will try it in himself or any one he will teach, shall find the advances greater in this method than they would in the same space of time have been in any other he could have taken."

Locke as a Representative of the Naturalistic Tendency. — In a sense, Locke is the founder of the naturalistic movement in education, for in many respects, Rousseau freely acknowledges indebtedness to him. Yet, as has been previously noticed, there was fundamental disagreement on the most vital point, in that Locke held that the very purpose of education was to thwart and thus, through discipline, to bring under the control of reason and authority the natural tendencies of the child. The sensationalism of Locke became the philosophical basis of the naturalism of Rousseau so far as it sought one in the nature of knowledge. Both believed that education must be based upon a sound physique,

cared for as a distinct plan of education; both believed that education in its earlier stages was a training in sense perception; both held that the process of education should be made pleasurable and the harshness and cruelty of accepted practices done away with; both believed in making learning easy, — Locke so far as consistent with his fundamental tenets, — and that the natural curiosity of the child should be taken advantage of; both held that books were not the most important source of learning; both believed that children should be educated morally by allowing them to suffer the natural consequences of their own acts, though with Rousseau this was to be the fundamental principle, while Locke made much use of authority. Locke, as did Rousseau, ostensibly supplanted authority by reason; and yet Locke found much that was reasonable in authority. In respect to the fundamental principle underlying the physical, the moral, and the intellectual aspects of education, Rousseau, despite their special points of similarity, entered a protest against the view held by Locke.

THE DISCIPLINARY EDUCATION IN THE SCHOOLS. **In England.** — The trenchant criticism which Locke formulated against the type of education prevailing in the English public schools should not blind one to the fact that fundamentally their views of education were the same. What Locke objected to was that the schools confined their discipline to exclusively intellectual training; and that in this training they emphasized activities of the mind that were not the most important; and that the means they used, especially the writing of Latin themes and verse, were too restricted and were calculated to develop certain abilities that were of little value. The subsequent emphasis which these schools laid upon the importance of physical and moral discipline, through games and sports and out-of-door life in general, with all the training which came from the struggle for leader

ship among boys thrown almost entirely upon their own responsibility for government and the regulation of their relations among themselves, was due to a considerable extent to the influence of Locke's *Thoughts*.

The work of these public schools is typical of all educational work in England during all of the eighteenth and the greater part of the seventeenth and of the nineteenth centuries. The very extensive use of corporal punishment for the slightest offenses or deficiencies; the important influence exerted by the fagging system, in which the younger boys served as the personal attendants and servants of the older boys, performing all menial services such as keeping their rooms, preparing their breakfasts, building fires, running errands, etc.; the custom of governing the school and inflicting punishment in all save the most serious offenses by these same "sixth form" boys; all these indicate how completely, in respect to "virtue and breeding," education in the dominant English view had become and continued to be a discipline.

On the intellectual side the situation was even more striking, since nowhere else can one find dominant for so long a period, an elementary and secondary education with such a paucity of intellectual content. Beyond the mastery of the rudiments of grammar, which were ordinarily required for entrance, the entire work of from six to nine years was devoted to Latin and Greek prose composition and to the writing of verse, especially in the Latin. This was presumed to develop an appreciation for the classical literature, which constituted the sole content of their curriculum. This régime was hardly questioned until the opening of the nineteenth century, and for more than half a century additional the merits and demerits of Latin versification were discussed as though the whole question of educational values and of the subjects of study were compassed within these narrow limits. A brief description of the work of one of these schools — Westminster — in the seventeenth century is typical.

"About a quarter of an hour after 5 in the morning we were called up by one of the Monitors of the chamber; and after Latin prayers we went into the cloysters to wash, and thence in order, two by two, to the schoole, where we were to be by 6 of the clock at furthest. Between 6 and 8 we repeated our grammar parts (out of Lilie for Latin, out of Cambden for the Greek); 14 or 15 being selected and called out to stand in a semicircle before the Mr. and other scholars, and there repeate 4 or 5 leaves in either, the Mr. appointing who should begin and who should go on with such and such rules. After this we had two exercises that varied every other morning. The first morning we made verses *extempore* Latin and Greek, upon two or three several themes; and they that made the best (two or three of them) had some money given them by the school-mr., for the most part. The second morning, one of the form was called out to expound some part of a Latin or Greek author (Cicero, Livie, Isocrates, Homer, Apollinarius, Xenophon, &c.), and they of the two next forms were called to give an account of it some other part of the day; or else they were all of them (or such as were picked out, of whom the Mr. made choice by the fear or confidence discovered in their looks) to repeate and pronounce distinctly without book some piece of an author that had been learned the day before. From 8 to 9 we had time for Beaver, and recollection of ourselves, and preparation for future exercises. Betwixt 9 and 11, those exercises were read which had been enjoined us over night (one day in prose, the next day in verse), which were selected by the Mr.; some to be examined and punished, others to be commended and proposed for imitation. Which being done, we had the practice of *Dictamina;* one of the 5th form being called out to translate some sentences out of an unexpected author (*extempore*) into good Latin; and then one of the 6th or 7th form to translate the same (*extempore* also) into good Greek. Then the Mr. himself expounded some part of a Latin or Greek author (one day in prose, another in verse) wherein we were to be practised in the afternoon. At dinner and supper times we read some portion of the Latin Bible in a manuscript (to facilitate the reading of such hands): and, the Prebendaries then having their table commonly in the Hall, some of them had oftentimes good remembrances sent unto them from thence, and

withal a theme to make or speak some *extempore* verses upon Betwixt 1 and 3, that lesson which out of some author appointed for that day had been by the Mr. expounded unto them (out of Cicero, Virgil, Homer, Euripides, Isocrates, Livie, Sallust, &c.) was to be exactly gone through by construing and other grammatical ways, examining all the Rhetorical figures, and translating it out of verse into prose, or out of prose into verse, out of Greek into Latin, or out of Latin into Greek. Then they were enjoined to commit that to memory against the next morning. Betwixt 3 and 4 we had a little respite: the Mr. walking out and they (in beaver-times) going in order to the Hall, and then fitting themselves for their next task. Between 4 and 5 they repeated a leaf or two of some book of Rhetorical figures, or choice Proverbs and Sentences, collected by the Mr. for that use. After, they were practised in translating some *Dictamina* out of Latin or Greek, or sometimes turning Latin or Greek verses into English verse. Then a theme was given them, whereupon to make prose of verses, Latin and Greek, against the next morning. After supper (in summer-time) they were three or four times in a week called to the Mr.'s chamber (especially they of the 7th form), and there instructed out of Hunter's Cosmographie, and practised to describe and find out cities and countries in the maps. Upon Sundays before morning prayers in summer they came commonly into the school (such as were King's scholars), and there construed some part of the gospel in Greek, or repeated part of the Greek catechism. In the afternoon they made verses upon the preacher's sermon, or epistle and gospel. The best scholars in the 7th form were appointed as Tutors to read and expound places of Homer, Virgil, Horace, Euripides, or other Greek and Latin authors, at those times (in the forenoon, or afternoon, or after beaver-times) wherein the scholars were in the school in expectation of the Mr. The scholars were governed by several *Monitores* (two for the Hall, as many for the Church, the School, the Fields, the cloyster — which last attended them to washing, and were called *Monitores immundorum*). The Captain of the School was over all these, and therefore called *Monitor Monitorum*. These Monitors kept them strictly to speaking of Latin, in their several commands; and withal they presented their complaints or Accusations (as we

called them) every Friday morning, when the punishments were often redeemed by exercises, or favours shown to boys of extraordinary merit, who had the honour (by the Monitor Monitorum) many times to beg and prevail for such remissions. And so, at other times, other faults were often punished by scholastical tasks, as repeating whole orations out of Tullie, Isocrates, Demosthenes, or speeches out of Virgil, Thucydides, Xenophon, Euripides, &c."

In the great survey of all of these schools in England made by Carlisle, well into the nineteenth century, the curriculum of the same school — though the curriculum is everywhere practically the same and deserving of only a sentence or so in the many pages devoted to each school — is as follows: "The Latin and Greek Grammars of the College only are used. The routine of Education comprises the Classics throughout, and Composition in Verse and Prose. The other parts of education, such as French, Arithmetic, Mathematics, etc., are not taught in this School."

In Eton, the most important of all these schools, mathematics, though taught privately by some of the masters much earlier, was not introduced as a part of the curriculum until near the middle of the century. The reforms since the middle of the century have introduced the modern side, — modern languages and the sciences, — but the conception of education is yet much the same.

In the English universities the spirit until very recent times was similar. The classics and mathematics constitute the bulk of the curriculum. From these, until 1850 at Oxford and until 1851 at Cambridge, the subjects for examination must be chosen. The fact that none of the great scientists of the nineteenth century either was trained or did his life's work in connection with the universities is one of the most striking evidences of the narrow conception of education prevailing therein.

In Germany. — No more significant evidence of the hold of

this conception upon the German educators could be found than the term applied to their representative school — the *gymnasium*, the place for the discipline, training or gymnastic of the mind, as with the old Greek the gymnasium had become, when this higher training of the mind had replaced the previous training of the body.

As noticed in the previous chapter, the realistic conception of education found no response in the schools until near the middle of the eighteenth century. Even then it was quite slight for the remainder of the century. The narrow humanistic education upon the disciplinary basis prevailed almost universally. There existed as yet little national spirit that demanded an education as a basis for the unification in spirit of the German people. Such unity in ideas and in spirit as they possessed was largely due to the Church, which controlled education as a means subordinate to itself. The Church here as elsewhere held the disciplinary conception of education. The awakening at the opening of the nineteenth century, which gave to the German people an entirely new conception of the purpose of education, is to be noticed later. This change in conception of purpose modified the conception of method or procedure, or at least, relegated the disciplinary thought to a secondary place. The *New Humanism* would use the classical languages for an entirely different purpose, — that of developing individualism and national spirit and vitality, through the spirit and substance of the ancient, especially Greek life. Latin became secondary to Greek, and the formal study for discipline and for scholastic form was replaced by the ideal of culture as shown in a life of activity. But political reaction, followed by revolution, produced a decided educational reaction, and the disciplinary idea as the bulwark of authority again became dominant. Even as late as 1892, the German emperor, speaking of the character of the education dominant in the German higher schools, could say: —

"If any one enters into a discussion with these gentlemen [the supporters of the rigid classical gymnasien] on this point, and attempts to show them that a young man ought to be prepared, to some extent at least, for life and its manifold problems, they will tell him that such is not the function of the school, its principal aim being the discipline or gymnastic of the mind, and that if this gymnastic were properly conducted the young man would be capable of doing all that is necessary in life. I am of the opinion that we can no longer be guided by this doctrine."

In America. — In our own country the breaking away from the dominance of the old ideas came much earlier, on account of social reasons. However, the disciplinary idea is held quite widely even yet and controls much of school work. When the old Latin grammar schools gave way to the academies, in the later eighteenth century, the first step was made. The encroachment of the sciences and the modern culture subjects in the colleges went on gradually, until by the middle of the nineteenth century they were well established. With the adoption of the elective system, the old disciplinarian basis was largely abandoned, as it has been since even in the collegiate study of the classical languages.

Strange to say, it was in the field of elementary education that the conception dominated the longer. The idea did not control so completely that subjects valuable for their content were altogether excluded; yet, until recently, the form studies, such as grammar, arithmetic, and spelling, constituted the core and, in quantity, the bulk of the elementary curriculum. The training, or discipline, given by these subjects was held to be the element of chief importance in the early years of schooling. Little by little, since the opening of the nineteenth century, the content studies, such as literature, history, geography, and the natural sciences have made their way from the academies and secondary schools down into the elementary grades. The reasons underlying these changes are to be discussed in subsequent chapters.

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TOPICS FOR FURTHER INVESTIGATION

1. What similarities and dissimilarities between the disciplinary education of the Middle Ages and that of modern times?

2. What historical connection between the disciplinary idea of education of the Middle Ages and its revival during the seventeenth century?

3. What points of disagreement do you find between the philosophical and psychological theories of Locke and his educational doctrines?

4. What are the arguments advanced by John Stuart Mill and Professor Whewell in their controversy of the early half of the nineteenth century concerning the educational value of the classics and mathematics?

5. In what respects did the religious view of the past centuries support the disciplinary conception of education?

6. What are the arguments in favor of the disciplinary conception of education advanced in the *Cambridge Essays?*

7. In what details does Locke agree with the sense-realists in their view of education?

8. In what with Montaigne? With Rousseau?

9. Give an account of the work of one of the English public schools previous to 1850. At the present time.

10. To what extent did the disciplinary view prevail in the early American colleges? Give a detailed account.

11. Give an analysis of the conception of the disciplinary education as expounded at present.

12. What is the explanation of the fact that the public and the press frequently support the old disciplinary view of education in opposition to modern modifications of educational practices?

13. State the problem of disciplinary education of our elementary schools of the present.

Chronological Table of Educational Development during the Seventeenth and Eighteenth Centuries

Political Events and Personages	Literary Men, Religious Leaders, etc.	Scientists, Philosophers, etc.	Educational Writings and Educators	Educational Events
1600.	Bunyan 1628-1688	Galileo 1564-1642	Ratich . 1571-1635	1619. First Natural Science Association (Rostock).
1618-1648. Thirty Years' War.	George Fox 1624-1691	Hugo Grotius 1583-1645	Comenius 1592-1671	1619. First comp. ed. (Weimar).
1620. Plymouth settled.	Spener (Pietist) 1637-1702	Bacon 1561-1626	Comenius's *Great Didactic* . 1630	1633. First el. school in America (N. Y.).
1648. Peace of Westphalia.	1673. Test Act, Eng.	Harvey 1578-1657	Comenius's *Orbis Pictus* . . 1657	1635. Boston Latin. Grammar School.
1649. Charles I beheaded.	1685. Edict of Nantes revoked.	Hobbes 1588-1679	Milton's *Tractate* . 1644	1636. Harvard founded.
1660. Restoration.	1695. Toleration Act, Eng.	Des Cartes 1596-1650	Fenelon's *Ed. of Girls* . . 1687	1642. School reforms of Gotha.
Louis XIV 1643-1715	Corneille 1606-1684	Boyle 1627-1691	Lasalle's *Institutes*, 1684	1643. Port Royal "Little Schools."
1679. Habeas Corpus Act.	La Fontaine 1621-1685		Locke's *Thoughts* . 1693	1647. Comp. School law in Mass
1688 English Revolution.	Racine 1639-1699			1693. William and Mary founded
				1694. First modern university. (Halle founded.)
				1697. Teachers' seminary at Halle.
				1699. Soc. for Prom. of Chris. Knowl. founded.
1700.	Fenelon 1651-1715	Newton 1642-1727	Francke, 1663-1727	1700. Yale College founded.
1713. Peace of Utrecht.	Montesquieu 1689-1755	Leibnitz 1646-1716	Rollin . 1661-1741	1704. First American newspaper
Queen Anne 1702-1714	Voltaire 1694-1778	Halley 1656-1742	Julius Hecker 1707-1768	1709. First daily newspaper.
Frederick William of Prussia 1713-1740	Pope 1688-1744	Buffon 1707-1788	Rousseau 1712-1778	1724. Compulsory education of both sexes in Saxony.
Frederick the Great 1740-1786	Richardson 1689-1761	Linnæus 1707-1778	Rousseau's *Émile* . . 1762	1746. Princeton founded.
1756-1763. Seven Years' War.	De Foe 1661-1731	Franklin 1706-1790	Johann Basedow 1723-1790	1747. First *real schule* (in Berlin).
1757. British East India Empire founded.	Addison 1672-1719	Hume 1711-1776	Salzmann 1744-1811	1748. First *Lehrerseminar* founded.
1772. Partition of Poland.	Fielding 1707-1757	Watt 1736-1819	Campe . 1746-1818	1751. Academy of Philadelphia founded.
1759-1773 to 1814. Jesuit Order suppressed.	Gray 1716 1771	Lavosier 1743-1794	Pestalozzi 1746-1827	1754. Kings' (now Columbia) College founded.
1775-1783. American Revolution.	Jonathan Edwards 1703-1758	Priestley 1733-1804	Pestalozzi's *Leonard and Gertrude* . 1781	1764. Expulsion of Jesuits from France.
1789. First President inaugurated.	John Wesley 1703-1791	Adam Smith 1723-1790	Knox, *Liberal Education* 1781	1763. Special training required of all German teachers.
1789. States General.	Diderot 1713-1784	Lamarck 1744-1829	Edgeworth, *Practical Education* 1798	1763. Founding of present system of Prussian schools.
Louis XVI 1774-1792	Helvétius 1715-1771	Werner 1750-1817	Jean Paul Richter 1763-1825	1774-1793. Basedow's *Philanthropinum*.
1799. Bonaparte overthrows Directory.	Condillac 1715-1780	Kant 1724-1804	Frederick Augustus Wolf 1759-1824	1783. Sunday-schools founded.
	Burns 1759-1796	Herschel 1738-1832	Bell's *Experiment in Education*, 1798	1784 University of State of New York.
1800.	Schiller 1759-1805	Schleiermacher 1768-1834	Lancaster's *Monitorial System* . 1798	1785. Land endowments for public schools in United States.
		Fichte 1762-1814	Andrew Bell 1753-1832	1785. Webster's *Speller*.
		Laplace 1749-1827	Joseph Lancaster 1778-1838	1794. All Prussian teachers declared State officials.
		Humboldt 1767-1835	Noah Webster 1758-1843	1793. Decree of Rev. Convention on education.
				1794. National Normal School in France.
				1795. Primary education established in France.
				1795. Lindley Murray's English grammar.
				1798. Monitorial System established.

CHAPTER X

THE NATURALISTIC TENDENCY IN EDUCATION: ROUSSEAU

RELATION TO PREVIOUS MOVEMENTS AND TO THE TIMES. — In order to understand the origin of the naturalistic movement in educational thought and practice, one must return to the various phases of the realistic movement in the seventeenth and early eighteenth centuries; for out of these grew two movements which explain the formalism of the eighteenth century against which naturalism arose as a protest. The first of these was the orthodox religious formalism; the second was the rationalistic formalism of *The Enlightenment.*

On the one hand is found the formalism in religious thought and life growing out of pietism in Germany, Jansenism in France, and Puritanism in England. Originating as protests against earlier religious formalism, each of these religious movements degenerated during the early eighteenth century into another type of religious formalism. That against which they rebelled had been a formalism of observance. Puritanism and pietism were returns to the early Reformation emphasis on faith, to the simplicity of a non-ritualistic worship, and the earnestness of an intensely devotional life, which found expression in the conduct of everyday life. Jansenism was an emphasis on faith and an opposition to the ceremonial expression of religious feeling that was in strong contrast to the characteristic beliefs and practices of the Roman Catholic Church in general. These reform

tendencies had degenerated into a type of life that posited ideals impossible of actual realization by the masses of the people or even by the majority of their devotees; ideals which made the simplest amusements and pleasures heinous sins; and which, consequently, perpetuated, even if they did not develop, a piety that on the part of many became affectation and hypocrisy, and on the part of others became fanaticism and a menace. The heinousness of bell ringing and ball playing to John Bunyan furnishes an example of this extreme pietism; but the reaction as seen in the depth and sincerity of Bunyan's religious experience was radically different from the prevailing spirit of a generation or so later. A tone of cant was introduced into literature and social intercourse, and underneath this a frivolity and licentiousness was introduced into the life of the times. There occurred a notable hiatus between profession and action, between faith formally accepted and life actually lived. The resulting hypocrisy was despised by those who, either through weakness of character or through social situation, were compelled to conform, and by those who honestly believed in the impotency of such rigid ideals of conduct and who had greater faith in the genuineness of human nature and the permissibility of the relaxation and pleasures which it craved.

The dominant formalism in France was of a somewhat different type. Here the Church retained all its former power, and exerted a most oppressive influence over thought and action. The reigning monarchs made amends for their licentiousness by persecution and inquisitorial torturing of those who dared question the authority of the Church, and purchased a similar indulgence for their aristocracy by a most intense loyalty to formal orthodoxy. "Ceremonial display and outward magnificence merely veiled moral meanness and inward depravity; punctilious attention to the rites of the Church, and a blind or feigned orthodoxy, only favored the spread of hypocrisy and of a secret and cynical skepticism."

This is the summary drawn by Flint. France had been during the seventeenth century the first nation of the world, and during the seventeenth and early eighteenth centuries had passed through a period comparable to the Periclean or Augustan ages of ancient civilizations. Victorious in war, France had spread abroad her power into other continents and possessed a court more brilliant than any in modern times. The French state was the model of absolutism; French aristocracy had become possessed of all power and wealth. The French language was the language of the courts of Europe and of international communication; French literature had reached a beauty of form not then attained by any other modern language; French manners had attained a refinement and French society a perfection in form and in attractiveness that caused them to be imitated throughout Europe as the highest product of civilization. But the brilliancy of Paris had been purchased at the expense of the provinces; the power of the king had been bought with the slavery of his people; his success in war with the impoverishment of the country; the extravagance of aristocratic society with the sordid lives of the common people. The supremacy of the orthodox Church had been brought about by the suppression of all right of individual judgment; the support of the nobility for the Church and State had been secured by unjust privileges and corrupt lives. In England similar pretentious piety and orthodoxy could exist alongside of laws that enumerated one hundred and sixty-four offenses punishable by death. Nor were these mere statutory forms, for there were many executions for most trivial offenses. Upon the Continent the Inquisition was even yet in operation. In Spain, in 1723, the daughter of the regent of France was treated to the public spectacle of the burning alive of nine heretics as a part of her marriage festivities. France yet forbade the burial of the bodies of heretics in any cemetery; and, in the centers more remote from the "enlightenment"

of the capital, scoffing heretics yet had their tongues torn out. It is true that it was only the books of Rousseau that were burned by public hangmen, but two generations earlier it would have been the author instead of his writings.

The picture has been painted many times, but it takes a large canvas for the details. Sufficient to say, that there prevailed an absolutism in politics, in religion, in thought, and in action that could continue only so long as great ability was found in the rulers and so long as no one arose to lead the masses in revolt. The first revolt was that of the intellect against repression; the second was that of the masses for the rights of the common man. On the thought side these two movements had much in common and are often included together. Yet, in certain fundamental things, like formalism and aristocracy, there was a radical divergence between them. This divergence gave to the naturalistic movement its chief features, and differentiates the latter half of the eighteenth century from the first half.

However, it must be noted, that the two movements cannot be sharply differentiated, and that they are often included together under the term here restricted in its application to the first period alone. Such a use necessitates an odd grouping of men. The quiet, timid, even pious Locke, who may be said to have begun the movement, the satirical Voltaire and Swift, the formalistic Pope and Chesterfield, the emotionalistic Rousseau and Wordsworth, the anarchistic Danton and Robespierre — all participated. Thus in some respects the greatest diversity of ideas as well as of methods are represented. The latter part of the eighteenth century marks the complete break from the old system of thought and of social order, and the origin of the new systems of thought and of instruction which we call modern. But it was the entire thought-movement of the century which produced this. Therefore it is necessary to note the characteristics of both phases in order to understand the social and

intellectual development of the century; but it is the latter phase, the naturalistic tendency, which is of peculiar interest to us, on account of its influence in the shaping of educational thought.

THE ILLUMINATION, OR THE ENLIGHTENMENT, is the term given to this movement of the early eighteenth century, though frequently it is used to include the latter part of the century as well. The latter movement — the naturalistic one — was made possible by the earlier one, — the Enlightenment, — and includes some features common to it. The term *illuminati* possesses greater definiteness and is applied to the group of philosophers, theological writers and "freethinkers" and literary writers of Germany and France in the early part of the century.

This new movement, though it was a most notable step in the development of human freedom, was in its outcome but a new type of formalism, — the second spoken of as resulting from reaction to the earlier realistic movement. This eighteenth-century formalism was materialistic as the former had been pietistic; skeptical and rationalistic as the former had been religious and devotional — or at least ceremonial; aristocratic as that had been democratic. Holding that morality consisted in the observance of form and the preservation of proper outward appearance, it permitted the grossest immorality, as is evidenced by the literature of the times. Rejecting the practices of Puritanism and pietism as hypocrisy and revealed religion as superstition, it became openly atheistic or skeptical, and as with Hume and Gibbon in England and Voltaire and the encyclopedists in France, interpreted life from that position. In its origin it was a reaction against the existing formalism in thought and in belief, and against the absolutism of the Church.

At bottom a protest against antiquated and arbitrary systems of thought and of society, the Enlightenment rebelled

against hierarchy and despotism in Church, State, and society, against superstition and ignorance in thought; against hypocrisy in morals; — though often, as the price of freedom, with the resultant extreme of anarchism in social order, atheism and skepticism in thought, and license in morals. Estab lishing as its fundamental principle a complete reliance upon human understanding and reason, it opposed all ancient abuses and along with these all forms of tyranny, whether in thought, in government, or in morals. Finally, it attacked the very foundations of all the institutions through which such authority was exercised, thus destroying or eliminating for the time being much that was woven into the very texture of a stable society and is ever essential to it. Through human reason alone was any true estimate of life now to be formulated and human happiness attained.

The aim of the Enlightenment was to liberate the mind from the dominance of supernatural terrorism; to establish the moral personality of the individual independent of ecclesiastical and social forms; to demonstrate the intellectual freedom and sufficiency of man; to destroy the terrorisms over the feelings, the absolutism over thought, the tyranny over action, exercised especially by the Church, and, as supplementing the Church, the monarchy. The Enlightenment posited a supreme faith in the reason of the individual, in justice in the state, in toleration in religious beliefs, in liberty in political action, and in the rights of man. The entire period was controlled by a profound belief in the prerogative of the individual, his right to individual judgment, and to the determination of every question uninfluenced by the beliefs and superstitions of the Church and the traditions of society. Freedom of thought, liberty of conscience, sufficiency of reason for the conduct of life, were thus the watchwords and the keys of interpretation of this eighteenth-century movement.

There were various phases to this new movement now to be briefly stated. Most fundamental among these was the

philosophical phase. In this respect the movement began in England with Locke, who stated the questions to be solved and indicated the source of the answers. Rejecting the older speculative philosophies, he sought the actual source of knowledge, the degree of its validity, and the extent to which human insight reached. All these questions were to be settled by investigation. The philosopher's rule was later formulated into the poet's dictum, "The proper study of mankind is man." They held that all ideas arise from experience; that there are none innate. Sensation to them was the primary source of all knowledge; though reflection was a secondary source. Philosophy delineated the secular view of life, individualism was emphasized, the reason exalted. Sole reliance was to be placed in the human understanding.

If philosophy furnished the fundamental element in the Enlightenment, the religious phase was certainly the most prominent. While Locke wrote in defense of religion, this did not prevent his philosophy from becoming the basis of all attacks upon it. The emphasis on reason was so prominent that the term "rationalism," in its narrower technical meaning, yet indicates that particular movement which opposed both the belief in the supernatural religion of the Church and in the naturalistic religion of the succeeding period. To the rationalists the human understanding was the final test of religious truth. Rationalism rejected revelation either as false or, since merely confirmatory in its main points to the teachings already given by reason, as unnecessary. The orthodoxy of the times, previously mentioned as productive of the pietistic movement and as responsible for the formalism in education, prepared the way for rationalism through its own emphasis upon the importance of logical statement and through its neglect of the spirit of religion.

But to the French philosophers and writers this religious phase of the movement took upon itself a more practical character. There it was not only the formalism of belief, but

the formalism of life and of ceremonial that was objected to; not only the superstition in thought, but the immorality and heartlessness in action that was striven against; not only the harshness of orthodoxy, but the violence and the tyranny, the persecution and the terrorism produced in suppressing all difference in opinion, that called forth the opposition of these men to the one great force, that, as they believed, opposed the exercise of individual judgment, the use of reason, the development of intelligence, and the progress of society. Against the Church, then, they concentrated all their efforts. Voltaire (1694–1788) devoted his long life, productive of literary works numbering among the hundreds, to the overthrow of "The Infamous," as the Church was termed. As Louis XIV remarked, "I am the state," Voltaire, it is said, might well repeat, "I am the century." Voltaire and his co-workers identified the obscurantist ecclesiasticism of the times with Christianity, Christianity with religion, and boldly argued that all religion was an evil, an impediment to progress, a tyrant over reason, and that the Church was the great curse of the times, — was "The Infamy." Judged from the point of view of those attacked, it has usually seemed that the aim of Voltaire and his followers was merely negative and destructive. Yet he chiefly attacked narrow dogmatism, persecution, inhumanity, special privileges, which were in those times all summed up in the Church, and aimed to make them hated by all. His positive aim was to free human thought from the superstition and bondage of tradition, to establish the right of individual judgment, to further the enlightenment of the people and the exaltation of reason. If reason is to be the guide to life and the test of all custom and institutional life, it is necessary to free it from prejudice and superstition. Since, as the *illuminati* held, these are rooted in religion, fostered and preserved by the Church, it is necessary to overthrow the Church and to substitute a religion of reason or of nature. To this modified

belief in a natural religion, Voltaire came in the later part of his life.

That phase of the movement which was directed to the organization and life of society was characterized by the dominance of the same unbounded faith in reason. Consequently the monastic custom, the celibate life of the clergy, the ceremonials, and the repressive tyranny of the Church called forth the bitterest attacks because of their "unreasonableness," rather than because of their hollowness and the lack of conformity of ideal with practice. Thus the same standard controlled in regard to social and especially political organization as did in the attitude toward religion. Even in France, the idea of natural rights, of equality before the law, of individual choice as the source of sovereignty, and many of those ideas that became of such tremendous practical importance in the latter part of the century had been often suggested and elaborated. Now commended by reason, they acquired a new vitality, a new meaning

Another effect of this exaltation of reason deserves notice. Voltaire and his co-workers of the early half of the century were no less aristocrats than those aristocrats of privilege whom they opposed. Whether they expressed it in so many words or not, they held that the lower classes were not amenable to reason, that they were incapable of being educated, that they were but little above the savages, and consequently that for them religion had a legitimate function.

The thought-movement of the early part of the century was aristocratic, because it was rationalistic. It aimed to secure the culture of the few, the overthrow of narrow traditionalism and dogmatism in the lives of those who controlled society and the control of reason among the educated class. It would substitute a new aristocracy of intelligence and wealth for the old aristocracy of family, of position, of the Church. It possessed a cleverness, a wit, a brilliancy that contrasted with the narrowness and dullness of the old; but it was for

the chosen few and had no regard for the masses sunk in degradation and overwhelmed by wrongs and tyranny While the *illuminati* opposed tyranny and oppression in human thought, they but aspired to profit by participation in the social and political privileges of the few. There was a selfishness and inconsistency about it all that but made more glaring the injustice to the many who must support the privileges of the few.

The intellectualism, the aristocratic tendency of the earlier movement, had developed into a formalism — a formalism of skepticism, of selfish indifference, of polished social intercourse, of stilted forms of an artificial society — that was rational enough to be sure, but that, through its artificiality, had lost all approach to a natural mode of living, and through its cosmopolitanism all national and local feeling. The propaganda of the Enlightenment had been confined to no one country; literature in the vernacular first came to be cosmopolitan through Locke, Pope, and the novelists of England, through Voltaire and the encyclopedists of France and the philosophers of Germany. This stilted wisdom and affected superiority of the learned class, now shunning simplicity as a mark of vulgarity and naturalness as a mark of irrationality, developed into a formalism that was no less repressive to the masses and no less distasteful to many. The formalism of morality into which the pietistic and Puritanic morality degenerated is well illustrated in the English novels of the eighteenth century, especially those of Richardson. The formalism of the Enlightenment is equally well illustrated in the conception of morality, of politeness, and of sympathy revealed in Lord Chesterfield's *Letters*. The later eighteenth century, weary of the formalism of both, became, under the leadership of Rousseau, directed to a new purpose.

THE NATURALISTIC PHASE OF THE EIGHTEENTH-CENTURY MOVEMENT. — Until the middle of the century,

philosophy and reason concentrated most of their attacks upon the Church; after the middle of the century, criticism was directed toward the evils of the social and political organization of life. The earlier aim was to destroy the existing abuses; the latter rather toward building up an ideal society.

But there were other more fundamental distinctions between the two movements. The rule of reason had come to be for many no less a tyranny than the rule of authority. As opposed to the earlier belief, the view was now urged that the senses were not always to be depended upon and that reason was not always infallible. On the other hand, the emotions or the inner sentiments, as true expressions of our nature and as opposed to the cold, selfish calculations of reason, were rather to be followed as the guide to right conduct. The movement of the latter half of the century looked toward the improvement of the masses of the people, as the former had resulted in the formation of an intellectual aristocracy.

Rousseau was the leader of the one as Voltaire was the leader of the other: Voltaire a leader in the first because of his brilliant intellectual power and his far-reaching rationalism; Rousseau a leader in the second because of his deep emotionalism and his profound sympathy for the people. "If it is an explanation of the popularity of Voltaire that he said what most were thinking, then we may say that Rousseau was popular because he gave the most perfect expression to what others were feeling."[1] The early movement had led to freedom of the intellect, but yet had tolerated, or preserved for selfish reasons, the formalism of social institutions. Since he had neither the ability nor the training to move with ease in this formal life of society when the opportunity was given him, Rousseau, led partly by personal feeling and partly by sympathy for the common lot made miserable by this indifference of the upper class, revolted most violently and propounded in place of the old law of reason the new gospel of

[1] Willert in *Acton's Cambridge History*, Vol. VIII, p. 28.

faith in nature, in the common man, and in man's ability to work out his own good in life. Contrasting with the majesty of the monarchy, the gayety and luxuriousness of the lives of the nobility, the brilliancy of society, La Bruyère drew a picture of "certain wild animals, male and female, scattered over the fields, black, livid, all burnt by the sun, bound to the earth that they dig and work with unconquerable pertinacity; they have a sort of articulate voice, and when they rise on their feet, they show a human face, and, in fact, are men." Quoting this, Morley adds: "There is no reason to think that Voltaire ever saw this gaunt and tremendous spectacle. Rousseau was its first voice. Since him the reorganization of the relations of men has never faded from the sight either of statesmen or philosophers with visions keen enough to admit to their eyes even what they dreaded and execrated in their hearts. Voltaire's task was different and preparatory. It was to make popular the genius and authority of reason."[1]

But the task of the second half-century, under the leadership of Rousseau, was to develop a new faith in man, to work out a new ideal in life, to infuse a new spirit into society, and to reëstablish a basis for religion in man's nature. When we take the old period and the new, each at its best, we find a profound difference between them. The same historian sums up the difference between the attitude of the naturalistic period and that of the period preceding the Enlightenment as follows: "Faith in a divine power, devout obedience to its supposed will, hope of ecstatic, unspeakable reward, these were the springs of the old movement. Undivided love of our fellows, steadfast faith in human nature, steadfast search after justice, firm aspiration toward improvement, and generous contentment in the hope that others may reap whatever reward may be, these are the springs of the new."[2]

One other aspect of this difference between the rationalistic and the naturalistic movements, between Voltaire and Rous

[1] *Voltaire*, pp. 27–28. [2] Morley, *Rousseau*, Vol. I, Introd.

seau, was their attitude toward religion. Voltaire held that all religion was an illusion to the believer and a deception by the priesthood. The naturalists, while they rejected both the skepticism of the *illuminati* and the old ecclesiasticism which they considered to be the superstition of orthodoxy, held and popularized a "natural religion," which included the morality of Christianity but excluded more or less completely the supernatural element. The criticism of this natural religion does not concern us here any more than does a criticism of the position of the skeptics; but it is important to note that the naturalists believed in religion as an essential part of human society because it was an essential part of human experience. The attitude of the Revolutionary Convention is a just commentary on the difference between the two movements in this respect: they affirmed the belief of the French nation in a Supreme Being and in the immortality of the soul, and accepted the confession of the Savoyard Vicar (from the *Émile*, Bk. IV) as the established faith. Skepticism and atheism were pronounced to be aristocratic and not to be endured.

The general conception of civilization held by Voltaire and his associates eliminated religion; permitted the populace no rights; had no sympathy with the masses; erected a polished, intellectual society, preserving its identity by a cold formalism and its morality by a punctilious observance of stiff rules; accepted reason as a guide in thought, materialism as a standard in morality, and self-interest or rather selfishness as the principle of action. In this conception of society is to be found the animus of Rousseau's contention that civilization is a curse. Of this contrast Flint states: —

"Voltaire's appreciation of civilization was likewise at once very sincere so far as it went, and yet very defective. He had a genuine enthusiasm for culture of a kind; a keen sense of the worth of science, art, literature, and social refinement. But his idea of civilization was most defective. It excluded

all earnest religions of faith, and included nothing higher than intellectual cleverness, moral respectability, and polished manners. It was not the idea of a civilization appropriative of all that is human, comprehensive of all that educates mental and spiritual life, and which, while it should refine and discipline nature, should likewise preserve its simplicity, respect its freedom, and favor individual and national originality; but rather that of a civilization of a special and artificial type, such as can only be local and temporary, and as was to be seen in all its glory in the fashionable *salons* and philosophic circles of Paris in the Voltairian period." [1]

In regard to education in the schools the rationalistic movement had little direct influence, though it controlled the private education of the upper class. The character of this can be judged from the ideals of life and conduct elaborated by Lord Chesterfield for his son. An education of worldly wisdom, a perfection in forms of behavior, a lack of all that is most serious in life, an emphasis on the importance of polite conduct, a higher appreciation of manners and courtliness than of virtue and seriousness, an attention to outward form without regard to inward reality, a smattering of knowledge of all kinds, a purely materialistic judgment of affairs of life, a nature developed to decide all things in the cold light of reason, full command of the body, with opinions never fully revealed, — these constitute the ideals of the education of the rationalistic-aristocratic period. It is but a further formulation of the social realism of Montaigne, in some respects a degenerate one, though in others an advance upon it. The connection so often made between Rousseau and Montaigne is because of their relationship to the intervening rationalistic period; the one contributed to its origin and the other made concrete and gave a new form to its great abstract principles. Yet compared with that advocated by the rationalists, the education of the naturalistic period is about as reactionary as could be constructed.

[1] *History of the Philosophy of History in France*, p. 300.

It is not in the details of the "education according to nature" that we are here chiefly interested; nor in the fundamental distinctions it opposes to the education of the rationalistic period. The main point to notice is that just as the great doctrines of liberation of the common man find their origin in the teachings of Rousseau, so also do the great educational doctrines of the liberation of the child. As the *Contrat Social* contains the germs of the Declaration of Independence and of the American Constitution, so the *Émile* contains the germinal ideas of the kindergarten, of modern elementary school work, and of the entire modern conception of education.

The extravagant form in which the doctrines are stated, the wild emotional vagaries of the author, his offensive personality, his inconsistent career, his evil influence, — political, literary, moral, — should not blind one to the fact that from him we obtain our idea that education starts from the child, that its process is determined by the child nature, and that its aim is summed up in the child's character and social relation; in other words, our idea of all that has since been elaborated as the details of the doctrines and processes of modern education.

JEAN JACQUES ROUSSEAU. — Essentially democratic, as the early phase of the Enlightenment had been essentially aristocratic, forming at once the culmination of the Enlightenment and the basis of nineteenth-century thought and life, the naturalistic movement finds both its origin and its most notable and influential exponent in Jean Jacques Rousseau. To estimate aright the ideas and purposes of this man, to understand the essential principles of the movement itself and its relation to the manifold institutional changes soon to be brought about, especially to gain any conception of its bearing on the development of educational thought, one must be prepared to lay aside all prejudices in the consideration of

a character in whom, probably beyond all others, is to be found the greatest mixture of strength and weakness, of truth and falsity, of that which is attractive and that which is detestable. A man governed wholly by his emotions, possessing the highest ideals with the greatest power of embodying them in words, but the slightest ability to realize them in action, with clear insight, unbounded sympathy, little accurate knowledge and less of disciplined power of mind, he gave an impetus to ideas held and expressed by many others that has made him one of the most powerful factors in all history. Napoleon said that without him the French Revolution would not have occurred; and, while it is impossible to say what would or would not have happened, he certainly caused a more complete revolution in educational thought and practice than any one man or group of men that we have to consider. He it was who first preached the political and social gospel of the common man and gave to him an education as a right by birth. To quote again from Morley: "It was in Rousseau that polite Europe first harkened to strange voices and faint reverberations from out of the vague and cavernous shadow in which the common people move."

Rousseau was born (1712) at Geneva, — a city renowned for its great intellectual and moral vigor, and its influence in these respects on Europe exerted through the dominant Calvinism of the Protestant population of France, England, and Scotland. In Geneva prevailed an earnestness of moral life, purity of domestic relations, simplicity of social order, freedom of government, that were in sharp contrast with the luxury, the wealth, the artificiality, the immorality, the cynicism of Parisian life. It was the memory of these early associations, intensified by the contrast with his later Parisian associations, that undoubtedly furnished the elements of the ideal natural state pictured by Rousseau; for to the burgesses of his native city, who later reciprocated by ordering his books burned by public hangmen, Rousseau dedicated

the work in which this ideal is most clearly set forth, his *Origin of Inequality among Men.* His training in early years was one of indulgence; and, while he was early taught to read, he devoted his early years to the unrestricted devouring of romances, — an experience which fixed in him a native tendency to sentimentality, even to sensuality. A few years of more formal education, very indifferently attended to, failed to make any radical change in his character thus early formed. At twelve we find him apprenticed to a trade, where, according to his own account, he learned more of deceit, idleness, and dishonesty than he did of craftsmanship. Four years later, still consulting only his emotions and the whims of sentiment, he became a common vagabond. But this life, continued for several years, had one merit, in that it strengthened both his love for and knowledge of nature. Converted one hungry day by a bottle of wine, a full meal, and the hospitality of a priest, whom he later makes famous as the Savoyard Vicar, he changed his religion and allowed this chance incident to shape his life for years. It is profitless from our point of view to follow his life in detail, except that one may see in the concrete Rousseau's ideal of education. Of an emotional rather than of a rational character, exalting natural instincts and desires above reason, holding that moral and religious ideas could not develop in early childhood, positing that more was to be derived from association with nature than from communion with books or from the intelligence of others, that proper development came from removing all restrictions and allowing natural tendencies to have full sway, — this conception of education was merely the outgrowth of his own life. The only permanent and elevating interest he seemed to possess throughout this period, as well as the only activity in which he possessed any ability, was music. As performer and as composer, if not as teacher, he possessed considerable talent, and contributed upon his specialty many of the treatises for the encyclopedic publications of his

day. When about forty, his aimless, meaningless existence became possessed of a great idea—an idea which gave point to his sentimental vaporings, to his emotional prejudices and beliefs; an idea that through him was to revolutionize the social structure of his adopted country as well as to modify profoundly that of many others; an idea which when applied to education was to create a new epoch therein as well. In brief, the main idea was simple, and now commonplace enough. Human happiness and human welfare are the natural rights of every individual, not the special possession of a favored class; legitimate social organization and education exist but to bring about the realization of this desideratum. To this he added as a main argument, — the fuse which was to explode the bomb, — science, art, government as then constituted, prevented this realization and hence were objects for destruction.

DOCTRINE OF THE "NATURAL STATE." — In 1749, coming by chance across the theme for a prize essay propounded by the Dijon Academy, — one of the institutions which during the eighteenth century did so much to make France famous in literature, art, and science, — Rousseau was seized with what he terms an inspiration. This indeed was one of those spontaneous convictions reached without any previous rational reflection, which were so influential in the life of this great exponent of the emotions and which were about as near an approach to definite rational processes as he ever reached. The theme was formulated in the question: "Has the restoration of the sciences contributed to purify or corrupt manners?" His answer was the negative one elaborated in the idea of the "natural state," — an idea much discussed during this period and by some even given the same form as that now propounded by Rousseau. But, unlike others, Rousseau furnished in defense of this thesis an emotional fervor and a literary style that carried conviction, and

to him belongs the honor of securing its popular acceptance. Rousseau did but little more than idealize his remembrance of the simple Genevan life and society, together with that of his own aimless, emotional life. As we recognize the primitive man to be, so certainly by his own showing was Rousseau in his worst moments, "lying, faithless, slanderous, thievish, indecent, cruel, cowardly, selfish." But this life had its positive side also; it was entirely spontaneous; it was simple, happy, contented, earnest, honest — in the sense of true to life; herein we find later one of its chief educational bearings. Compared with the life which Rousseau contrasted it with, — the formal, false, hypocritical, superficial, unfeeling, harsh, selfish, cruel, and to him inhuman life of Parisian society, — this life according to nature had much to commend it. Much of the unattractiveness of its form was due to the lack of that sophistication so characteristic of the social life of the times and was more than counterbalanced by its genuineness; while its strength lay in its recognition of the worth of the individual on his own merits, in the bond of sympathy which it recognized as the universal solvent, in its passion for freedom and for independence from the trammels of usage, tradition and tyranny.

Rousseau had now spent several years in contact, though not in sympathy with, the society of culture, wealth and position, on the one hand and, on the other, with that circle of powerful intellects centered around Voltaire which controlled the new thought and influenced most of the political and social hierarchies of Europe. With neither of these societies had he any sympathy; for the one principle which he honestly lived up to throughout his life was the democratic one, — his feeling for the common man, his belief in the worth of the individual. It was this hollow and insincere, though brilliant, witty, wealthy and "cultured" society that was before him when he produced his famous essays and those works for the following thirteen years ending with the *Émile*, which were to render him famous and to revolutionize society.

The argument, if argument it may be called, stripped of all its rhetorical embellishment and wealth of illustration, conveys little of the forcefulness and none of the fervor of the original essay and the subsequent defenses of the theme. Herein we find the negation of the Renaissance in all of its phases, including the rationalistic literary enlightenment then reaching its culmination. This, for us, is the significance of these ideas and of the following which they speedily obtained.

The second discourse, *On the Origin of Inequality of Men*, is devoted largely to an imaginary description of the state of society among primitive men. Here one finds only the physical or intellectual inequality established by nature, which under the natural conditions of primitive life hardly reveals itself and hence causes no diminution of the happiness, contentment, and welfare of man. Man is not then vicious, for he does not know what being good or bad is. He has one primitive virtue, that of pity, which takes the place of laws, manners and customs. It is reflection which isolates man; it is philosophy which leads one to say to a fellow-creature, "Perish if needs be; I am safe and sound." Through difference in natural talent, in environment, but, more than all, through the rise of private property, those social inequalities arose that have been magnified and perpetuated by political society. Political power is developed and organized to protect accumulated property. Inequality, summed up in the distinction between the rich and poor, becomes differentiated into many forms. It is to perpetuate these inequalities, of which modern society consists, that all political power exists.

The idea of this discourse leads to that of Rousseau's chief political treatise, the *Social Contract*, wherein the basal doctrines of the French Revolution as well as of our own Declaration of Independence are laid. Government is the result of a "contract" among the people, by which some are given delegated power to rule, while the remainder of the people give to the governing class some service in return for services

performed. Government, thus formed by agreement, can be dissolved when the parties no longer agree. It is to be noted that the conception of the "natural state" is modified in the *Social Contract;* it is no longer the life of the savage that is ideal, but the life in society organized under the rule of the people. Such a society — where the simple tastes and wants of the masses shall dominate and where an aristocracy with its ill-gained wealth, leisure time, and selfish indulgence is wanting — can devote itself to the development of an ideal life, wherein the "natural man" is not hampered, freedom is not lost, and the arts and sciences of polite society are undeveloped.

With the detailed argument of these *Discourses*, full of error as they are, we are not here concerned, but primarily with an exposition of their fundamental ideas and with their influence on educational thought.

THE "ÉMILE" AND EDUCATION ACCORDING TO NATURE. — In this long tale, part novel, part didactic exposition, Rousseau relates the proper education of the youth by showing the training of the child taken from his parents and the schools, isolated from society, and put into the hands of an ideal tutor, who brings him up in contact with nature's beauties and nature's wonders.

Threefold Meaning of Nature in the "Émile." — Though "education according to nature" is given a wider meaning, the doctrine of the natural state, as previously defined, here receives one of its fullest expositions and its most thorough application. In the opening sentence of the work the fundamental principle is stated: "Everything is good as it comes from the hand of the author of nature; but everything degenerates in the hands of man." We receive our education from these sources; from nature, from man, from things. When the training received from these three teachers is not harmonized, the individual is badly educated. "He in whom they all

coincide and tend to the same end, he alone may be said to move toward his destiny and to live consistently; he alone is well educated." Over two of these man has considerable control; over the third, nature, — "the internal development of our faculties," — he has none. Harmony in education is obtained by subordinating the education of man and of things to that of nature.

Nature is a habit, education is nothing but a habit. But habit is used in two senses. Primary dispositions, unaltered by enlightenment, by sophistication, or by suggestion from others constitute nature. Habit in this sense is to be followed; but habit in its usual significance indicates that which is acquired by direct imitation of other human beings, by suggestion, or by obedience to command. Concerning this Rousseau later says: "The only habit which the child should be allowed to form is to contract no habit whatever." As a subordinate connotation throughout the treatise, education according to nature thus indicates that the instinctive judgments, primitive emotions, natural instincts, "first impressions," are more trustworthy as a basis for action than all the reflection, the caution, the experience that comes from association with others. "Before this alteration (by habits of thought and judgment acquired from others) these dispositions are what I call our nature."

The fundamental meaning of "the natural state" in the *Émile* is its social one. This, however, is not, as contended in the *Discourses*, that the state of primitive man is superior to all higher forms of culture. But as in the *Social Contract*, he shows how a state of high culture can be based upon a truer political principle and thus a nobler type of social life than that of the eighteenth century evolved; so in the *Émile* he propounds an education, based not on the forms of society, the meaningless traditions of the school and a misconception or entire ignorance of childhood, but on a knowledge of the true nature of man As in the *Social Contract* he taught that

the only rights of man, natural rights, were those found in the laws of his own nature, so, according to the *Émile*, education is to be guided by these same laws. The "natural man" is not the savage man, but man governed and directed by the laws of his own nature. Such laws, as are the laws of any other portion of nature, are discoverable through investigation. Most criticisms of Rousseau (and very many of these may be valid) are based upon the fact that Rousseau himself, like most others, was ignorant of the real facts, certainly of the laws, of human nature, and that, despite the lack of actual knowledge, he was given to dogmatizing.

This being, according to Rousseau, the primary meaning of education according to nature, an opposition to society follows as a corollary. "We must choose between making a man and a citizen, for we cannot make both at once." But it must be understood that in a citizen and in society he had primarily in mind the civilization of the eighteenth century. In the *Social Contract* he had shown how a high state of culture, one infinitely preferable to the existing one, could be developed on a different social principle, that of individual choice, instead of that of arbitrary authority. Yet much in the situation is of general significance and is but a new form of the old problem of individual rights and social welfare. The same individualistic solution is given by Rousseau as was given by the Sophists and by the early Renaissance leaders. While Rousseau often suggests a rather vague doctrine of the primacy of self-love and love of goodness among human motives, no harmonization of this conflict is sought or found as it was by the Greek philosophers or the humanists of the reform period. As with the rationalism of the early eighteenth century, so with Rousseau, criticism is negative and destructive, with little of the constructive element in it. The positive interpretation is to be found in the following period: philosophically, with Kant and Hegel; educationally, with Herbart and Froebel.

"The natural man is complete in himself; he is the numerical unit, the absolute man who is related only to himself or his fellow-man. Civilized man is but a fractional unit, which is dependent on its denominator, and whose value consists in its relation to the whole, which is the social organization." Thus does Rousseau hold exactly the reverse of the thought of the present, which conceives the natural man to be the fraction, which finds completion as the social man as a unit in the greater unity of the whole. But this misanthrope, who at the same time was one of the greatest lovers of the common man and who had profound confidence in human nature, held that "the breath of man is fatal to his fellows." This is one of the paradoxes no less striking in his life than in his writings. Education for social institutions, for custom, — as these dominated in Rousseau's period of extreme artificiality, — he held to be mere slavery; by it the true nature of the child is neglected and true happiness overlooked. "The whole sum of human wisdom," he says, "consists in servile prejudices; our customs are nothing more than subjection, worry, and restraint. Civilized man is born, lives, and dies in a state of slavery; at his birth, he is sewn up in swaddling clothes, at his death, he is nailed in a coffin; so long as he preserves the human form he is fettered by different institutions."

Education, according to nature, had a third meaning in the *Émile*. This results, when the author elevates his chief means, contact with the phenomena of nature, into an end in itself. The mal-education which comes from man is to be counteracted by contact, fearless and intimate, with subhuman nature, — with animals, with plants, with physical forces of all kinds. Rousseau was a "lover of nature," and through his teachings began a movement of finer and fuller appreciation of nature, which found its expression in a wide school of literature both on the Continent and in England. Rousseau's conception, however, based upon a wholly misanthropic view of the life

of man in society, was not quite so genial, since it led to com plete isolation from society and to the preference for the life of the recluse. Both morally and physically he held that "Cities are the graves of the human species."

When applied to education this threefold view concerning the "doctrine of the natural state" resulted in a number of corollaries which were revolutionary.

Negative Education. — The prevailing conception of human nature and especially of child nature, reënforced by both educational and religious teachings, was diametrically opposed to that of Rousseau. Human nature was considered essentially bad; the purpose of religious training as well as of education in general was to eradicate the original nature and to replace it by one shaped under man's direction. Rousseau opposed this idea with the following principle: "The first education then should be purely negative. It consists, not in teaching the principles of virtue or truth, but in guarding the heart against vice and the mind against error."

With him the entire education of the child was to come from the free development of his own nature, his own powers, his own natural inclinations. His will was not to be thwarted.

"Experience or want of power ought alone to supply the place of law in regard to your pupil. Never let him have anything because he demands it, but because he needs it. Let him not know what obedience is when he acts; nor what authority is when others act for him. Let him be sensible of his liberty, alike in his own action and in yours. Is it not very extraordinary that the persons concerned in the education of children should never have devised any other instruments for managing them but jealousy, envy, vanity, greediness, and fear, passions all of a most dangerous tend ency, the quickest to ferment and the most proper for corrupting the soul, even before the body is formed? At every crude lesson which you want to drive into their heads, you plant a vice in the depths of their heart. Some foolish teachers think it a great thing, that, to the end that they may

learn the nature of virtue, they thus should become vicious, and then they tell us, with grave countenance, that his nature is such. Yes, truly, as it was spoiled by you. All instruments have been tried but one, the only one which can succeed, — well-regulated liberty."

By this negative education, expounded in most startling paradoxes, Rousseau did not maintain that there should be no education at all; but that there should be one very different *in kind* from the accepted educational practices. In one of his letters in defense of the *Émile* against the many attacks made upon it, the author wrote: "I call a positive education one that tends to form the mind prematurely, and to instruct the child in the duties that belong to a man. I call a negative education one that tends to perfect the organs that are the instruments of knowledge before giving this knowledge directly; and that endeavors to prepare the way for reason by the proper exercise of the senses. A negative education does not mean a time of idleness; far from it. It does not give virtue, it protects from vice; it does not inculcate truth, it protects from error. It disposes the child to take the path that will lead him to truth, when he has reached the age to understand it; and to goodness, when he has acquired the faculty of recognizing and loving it."

Interpretation of Negative Education. — This doctrine applied to physical education demanded the greatest freedom for the child, commended the most simple diet and clothing, condemned all medical treatment, and insisted upon a life in the country and in the open air. When applied to the intellectual training of the child it taught that little attention should be given to the child's intellectual training until after the age of twelve. "Childhood is the sleep of reason." Therefore the child should not be presumed to reason — even to read or work during this period. In its moral application this doctrine of negative education led to the formation of an hypothesis that since has had much influence and some able

interpreters, notably Herbert Spencer. This is the doctrine of moral training by natural consequences: allow the child to suffer the natural results of his own acts without the intervention of human beings to protect or to punish. As interpreted by Rousseau this meant, further, that the educator might correct the child so long as he could make it appear to the child that the punishment came through natural consequences and that human interference had nothing to do with it. If the child is slow in dressing for a walk, leave him at home; if he breaks a window, let him sit in the cold; if he disobeys and gets wet, let him have a cold and be compelled to remain indoors; if he overeats, let him be sick; if he is indolent and will not perform tasks assigned, let him go without food that would come as a result. In fact, let him suffer the natural results of the contravention of any laws of nature or of his own being; so far as concerns opposition from individuals, he should be opposed by no will of man, by no human authority.

While this doctrine has some obvious advantages and contains much truth, there are limitations upon its applicability that render it entirely unsatisfactory as a sole guide. While there is no room for discussion, a few of these may at least be mentioned. The value of such a principle depends altogether upon the pupil's connecting cause and effect; but Rousseau has already taught that, during the period wherein this doctrine is to be most thoroughly applied, the child does not reason. Therefore he would be unable, at all, to receive any *moral* instruction from such a procedure.

Aside from this reaction upon one's self, it is a large question whether the effects upon one's own physical being or individual welfare are the only ones to be considered. The results upon the feelings and the welfare of others are to be considered and cannot be left for development merely to natural love of goodness. Further, if all authority is to be thrown aside, is there no profit in the

experience of others? Rousseau thought, as that experience was embodied in literature, history, customs, institutions, there was little. To those who deny all legitimacy to authority, there is no answer to be made, for the individualism of Rousseau is sufficient; but in this position Rousseau himself was far from consistent.

Further, such a training would lead to the judgment of all acts from consequences rather than from motives, and to the development of prudence rather than of morality. Even granting that this were not true, it is difficult to see how such an education would ever develop *positive* moral character. Positive virtues could hardly be produced through the avoidance of non-pleasurable results to one's self alone, especially when the unreflective character of childhood is taken into consideration.

The practical objection that this method of training would lead to irreparable injury before the child could be educated need not be considered.

While these general principles of negative education underlie all education, Rousseau held that each phase of education, physical, intellectual, and moral, had an appropriate stage. The old attitude toward education — that it was a procedure uniform in character throughout and that the child was to be treated and the child mind to be trained just as the adult would be — Rousseau rejected; but he went to the other extreme and held that development of the child was through sharply defined periods which had little or no connection with each other and that each of these periods possessed an education of its own.

Education from One to Five. — Devoted largely to the statement of general principles, previously summarized, this first book of the *Émile*, treating of the education of the child from one to five, adds little of the concrete. The father is the natural teacher, as the mother is the natural nurse. By these two is to be given the early training, for the most part physi-

cal. The substance of the education of this first period is the opposition to the customary restrictions of swaddling clothes, of restraints on freedom, and of indoor life; opposition to the thwarting of natural inclinations and desires, and of punishment for acts before the child can have any conception of wrong or of why punishment is given. It includes extravagant praise of life in the country, of freedom, of sports and games, and of exercise. "The weaker the body, the more it commands; the stronger it is, the better it obeys. All the sensual passions find lodgment in effeminate bodies." "All wickedness comes from weakness. A child is bad only because he is weak; make him strong and he will be good. He who can do everything does nothing bad." These are the principles, however defective, that underlie all this earlier training. Little attention is to be paid to his intellectual and moral development. Effort should be made, even, to restrict his vocabulary. "It is a great disadvantage for him to have more words than ideas, and to know how to say more things than he can think."

Education from Five to Twelve. — This, "the most critical period of human life," is to be controlled by the two principles already elaborated, that education should be negative and that moral training should be by natural consequences. It is in his description of the proper education of the child during this period that Rousseau manifests most clearly his hostility to the type of education then prevalent. Instead of attempting, as is ordinarily done, to give the child all sorts of ideas, nothing at all should be done toward molding or forcing his mind. Childhood is for its own sake. "Nature desires that children should be children before they are men." The child need not be taught to read, though probably he will pick this up on his own accord. He will hardly know what a book is. "Exercise the body, the organs, the senses and powers, but keep the soul lying fallow as long as you can," is his advice. While the child knows nothing of

books and of that which passes for knowledge, "on the other hand he judges, foresees, reasons on everything which is directly related to him;" for this education is to be largely a training of the senses, such as can be gained by constant life with the forces and phenomena of nature. He measures, weighs, counts, compares, draws conclusions, tests inferences, discovers principles.

Education from Twelve to Fifteen. — This is the one period in life in which the strength of the individual is greater than his needs. As intellectual training has for its general result the multiplication of wants without any corresponding development of power adequate to meet those needs, this is the one period in life in which greatest stress can be laid upon the acquisition of knowledge. What will the child do with this surplus of power and energy?

"He will endeavor to employ it in tasks which may profit him when the occasion comes; he will project into the future, so to speak, that which is superfluous for the time being. The robust child will make provisions for the feeble man; but he will place these stores neither in coffers which can be stolen from him, nor in barns which are not his own. In order that he may really appropriate his acquisitions to himself, it is in his arms, in his head, and in himself, that he will lodge them. This, then, is the period of labor, of instruction, and of study; and observe, it is not I who have arbitrarily made this choice, but it is nature herself who indicates it."

But, after all, there are comparatively few things to be known that are of value. Curiosity — that ardor for knowledge which comes from natural desires, the innate desire for well being, not the ardor for knowledge that is founded on the desire to be considered wise — is the sole motive and the sole guide. The test of all is its practical use. "Let us then reject from our primary studies those branches of knowledge for which man has not a natural taste, and let us limit ourselves to those which instinct leads us to pursue," is his state-

ment of a principle far more widely accepted in this day than in his own. There is little of "book knowledge" even in this period. *Robinson Crusoe*, a study of "life according to nature," of self-help, of the uselessness of most knowledge and of all social forms, is the chief book recommended. Knowledge is to be clearly distinguished from truth and the *useful* from both.

"Since all our errors come from our judgment, it is clear that if we never needed to judge we should have no need to learn; we should never be in a situation to deceive ourselves; we should be happier in our ignorance than we could be with our knowledge. Who denies that scholars know a thousand true things which the ignorant will never know? Are scholars nearer the truth on this account? Quite the contrary: they depart from truth as they advance; because the vanity of judging, ever making greater progress than knowledge, each truth which they learn brings with it a hundred false judgments. It is absolutely certain that the learned societies of Europe are but so many public schools of falsehood; and very surely there are more errors in the Academy of Sciences than in the whole tribe of Hurons."

Among other things, Émile has learned a trade, "less for the sake of knowing the trade than for overcoming the prejudices which despise it." In his long discussions of the importance of the manual and industrial activities in education, Rousseau emphasizes many of the social advantages, without comprehending at all the psychological advantages that are so emphasized at present. At the end of this period "Émile is industrious, temperate, patient, firm, and full of courage. . . . He has little knowledge, but what he has is really his own; he knows nothing by halves. . . . Do you think that a child who has thus reached his fifteenth year has lost the years preceding?"

Education from Fifteen to Twenty. — Hitherto Émile's body, senses, and brain have been formed; it is now time that his heart should be shaped. Hitherto the child has been educated solely for himself and by himself; self-love has been the con-

trolling motive; self-perfection, self-development, the ultimate end. Now the youth is to be educated for life with others and is to be educated in social relationships. Love for others becomes the controlling motive; emotional development, moral perfection the goal.

Rousseau first called attention to the transcendent importance of the period of adolescence in education. "At this stage the ordinary course of education ends; but strictly speaking here one's should begin." Up to this time Émile has not been brought, save indirectly, into contact with others; he has not had to adapt himself to the conduct and interests of others; he has known no motives save those of self-interest and curiosity. He has probably never even heard the name of God. Now his education is to be strictly moral and religious. Previous attachments for persons have been merely the result of habitual association; now they are based on unity in sympathy and upon emotional experience. The whole character of his education changes. "The study proper for man is that of his relations. While he knows only his physical existence, he should solely study his relations to things; this is the employment of his childhood. When he begins to feel his moral existence, he ought then to inquire after his relations to mankind; for this is the proper occupation of his whole life, beginning from the period which we have now reached."

Self-love, in which are latent both good and evil, is now to be turned irrevocably toward the good. The basis of all this is the emotional life. "From the first movements of the heart, arise the first utterances of the conscience; and, from the first feelings of love and hate, spring the first notions of good and evil." As this training was to be secured in the earlier period by the preservation of his native modesty through the negative training, so now, not through precept, but through contact with men, through the example of his tutor, through the study of history, is this development to

be secured. "I do not grow weary of repeating that all the lessons of young men should be given in action rather than in words. Let them learn nothing in books that can be taught them by experience." And yet Rousseau was far from preaching the dangerous doctrine that one should learn to avoid evil through experience of its consequences. "There is no ethical knowledge which cannot be acquired through the experience of others or through one's own. In case the experience is dangerous, instead of making it ourselves, we draw the lesson from history. When the trial is without consequences, it is well for the young man to remain exposed to it." Thus, Émile is taught not only to shun evil, but to do good. Especially the poor and the oppressed call for his sympathy and his assistance. While he is firm in the assertion of his own rights, and is quick to the defense and protection of others, he is an exponent of the virtues of peace. "The spirit of peace is the effect of his education."

In a similar way he receives his religious education. "At the age of fifteen, he did not know that he had a soul, and perhaps at eighteen it is not yet time for him to be informed of it; for if he learns it too soon, he runs the risk of never knowing it." This last clause contains the underlying principle of his teaching concerning religious education. Otherwise, the religious ideas the child gets are mere forms, verbal imitations, worthless so far as real experience is concerned. Rousseau's development of the idea of a natural religion — the confession of the Savoyard Vicar — occupies a large portion of his work. While this is the portion of the treatise that caused the book to be burned by public executioner and the author to be expelled from Paris, we can devote no attention to it here, since it is aside from our main interest.

The Education of Women is treated in the fifth and last book. Though a prolonged treatise, it is of but little interest here, since it does not elucidate at all Rousseau's main principle. In fact, since Sophia's entire education is to be

determined by her future career as the life companion of Émile, Rousseau violates his fundamental idea, that each individual is to be educated for himself and guided by the needs and rights of his own personality. The animus of the entire argument is clearly revealed in this one sentence of condemnation of the prevailing literary education: "A woman of culture is the plague of her husband, her children, her family, her servants, — everybody."

SOME PERMANENT RESULTS OF ROUSSEAU'S INFLUENCE. The Education of Natural Interests vs. the Education of Artificial Effort. — That education is a natural, not an artificial process; that it is a development from within, not an accretion from without; that it comes through the workings of natural instincts and interests and not through response to external force; that it is an expansion of natural powers, not an acquisition of information; that it is life itself, not a preparation for a future state remote in interests and characteristics from the life of childhood, — these ideas constitute the fundamental teaching of Rousseau. The great variety of forms which these ideas have been given during the nineteenth century, even by many who repudiate the doctrines and influences of the "great leveler," are, after all, but new versions of the truth originally proclaimed in somewhat exaggerated form by Rousseau.

The old conception of education aimed to remake the nature of the child by forcing upon him the traditional or customary way of thinking, of doing, and even of emotional reaction; to substitute for the instinctive or "natural" reaction of the child those artificial reactions developed through many generations of religious, intellectual, and social formalism. Human affections were evil, and hence the heart was to be separated from the objects of natural desire. Human senses were untrustworthy, and hence could not be made the basis of knowledge or of instruction. Human inclinations

and instincts, springing from a nature depraved in its essence, were toward the evil and were to be eradicated. Natural interests, as expressions of the nature which both education and religion sought to repress and make over, were to be shunned in all educational processes. To the extent that an activity or task was difficult to perform intellectually and was distasteful emotionally, to this extent it possessed educational value. The first step in the moral education was to "break the will of the child," which in its perverseness but represented the evil of human nature. This was to be followed in his social and moral education by the constant effort to mold the child into the artificial forms of conduct, wherein a real and natural motive was hidden in formal behavior satisfactory to the judgment of the adult, even though it might conceal a motive contradictory to the external expression.

Religious, philosophical, psychological, social, educational beliefs and practices, coincided in this attitude toward the child.

Not only did the religious and philosophical view reject an education founded on the training of the senses, the use of the imagination and the guidance of natural interests and instincts, but, as has been seen in the previous chapter, the dominant psychological views implied the same attitude. The mind as a bundle of faculties was to be developed by exercising these various powers upon appropriate tasks whose value consisted in the difficulties they offered. These faculties were considered to have no necessary connection with one another, hence these disciplines were separate and distinct things; though some faculties were higher than others. The highest was the reasoning power to be developed by appropriate discipline in mathematics, logical disputations, and the languages; but the faculty upon which all the others depended, and upon the successful development of which depended the success of the education, was the

memory. Discipline of the memory then took precedence above all other exercises. The best training for the memory was afforded by the mastery of material which had no inherent interest for the child.

The social ideals of the time favored this same view. The child was considered but a miniature adult — of no value and of no rights until he could mimic the way of the adult. In this most artificial of all ages, in dress, in manners, in deportment, in pleasures, the child was molded on the pattern of his seniors, with the results that child life was almost eliminated from the upper classes. Previous to the Rousseau period, the child as he appeared in literature was merely the adult viewed through the wrong end of the telescope. He spoke as an adult, thought as an adult, acted as an adult. Educationally he studied the same subjects as the adult,— preëminently the languages; approached them from the same logical point of view, through formal grammar; mastered them through sheer effort of memory; made the same formal use of them, in the same artificially organized life.

All the subsidiary precepts of Rousseau were but concrete applications of his one general protest against this entire conception of education. "Take the reverse of the accepted practice, and you will almost always do right," he advised. Hence he reiterated in a variety of forms the thought that, "Whatever may happen, abandon everything rather than have his [the child's] tasks become irksome; for how much he learns is of no account, but only that he does nothing against his will."

Thus in Rousseau is found the negation of the conception of education of the Renaissance and of all of its subsequent development. All of these had considered education to be the making over of the child in the hand of man through the use of literature, religion and similar means, into a being different from the natural being, into one possessing knowledge valued by his fellows, ways of acting approved through

social institutions, ways of reacting emotionally approved by the current religion and morality. To such an artificial product, Rousseau opposed the human being educated through contact with nature, guided by his own natural interests and determined by his own inherent capacities and tendencies. In all the preceding period the educated man was the learned man, the man possessed of social culture; to Rousseau the educated man was the well-developed man.

The dominant views considered the value of any particular training to lie in the effort necessary to overcome difficulties. Rousseau conceived it to be in the interest stimulated in the child. This conflict between the education of effort and the education of interest instituted by Rousseau continues until the present time. The conflict between the elective and the prescribed course in college, between the disciplinary studies and the interest or content studies in the elementary grades, are aspects of the same struggle. The reconciliation in theory and the embodiment in practice are the tasks of the present.

The fundamental truth of the position that he emphasized, and that subsequent experience has striven to realize in practice, is that all educative efforts must start from the instinctive tendencies. The effort to thwart them, to stifle them, to eradicate them instead of to modify or reorganize them is the great error of educators. The reaction of the child against unnatural treatment often results in producing a type of character and a disposition which is then often considered inherently evil. "Their first language, you say, is a tear. I can well believe it. From the moment of their birth, you cross their desires; the first gifts they receive from you are chains; the first attentions they experience are torments."

The Conception of Education as a Process — as the process of living — follows as a corollary from the preceding. Being a process it lasts throughout life, or at least from birth to adult

life, and finds its meaning for any particular stage, not in a future state, but in the process itself: —

"What must we think," he asks, "of that barbarous education, which sacrifices the present to the uncertain future, which loads a child with chains of every sort, and begins by making him miserable in order to prepare for him, long in advance, some pretended happiness which it is probable he will never enjoy? Were I even to assume that education to be reasonable in its object, how could we witness, without indignation, these poor unfortunates, subject, like galley slaves, to never-ending toil, without any assurance that such sacrifice will ever be useful to them? The age of mirth is passed in the midst of tears, chastisements, threats, and slavery."

Education is no longer a procedure, — artificial, harsh, unsympathetic, repressive of all natural inclinations, — by which the child as a little man is made into a big man through the hands of the teacher. But, through allowing natural forces to have their way, it is the process of development into an enjoyable, rational, harmoniously balanced, useful, and hence natural life. The end is reached, not with adult life, but with each succeeding day whenever life has its natural activities, its appropriate duties, and its corresponding satisfactions. Later Rousseau says: "A child knows that he is to become a man, and all the ideas which he can have of man's estate are occasions of instruction to him; but of the ideas of that state which are not within his comprehension, he ought to remain in absolute ignorance. My whole book is but a continual proof of this principle of education."

A Simplification of the Educational Process follows. If education as an artificial procedure, as a making over of the child at the hands of man on the model conventionalized by society, is done away with, the highly elaborated artificial methods of instruction have no further use.

"Let us transform our sensations into ideas, but let us not jump abruptly from sensible objects to intellectual objects;

for it is through the first that we are to reach the second. In the first movement of the mind, let the senses always be the guides; let there be no books but the world and no other instruction than facts. The child who reads does not think, — he merely reads; he is not receiving instruction but learning words."

The latter criticism is as pertinent in regard to much of school work now as in the days of Rousseau. Geography is to be learned in the woods, fields, and hills, by the observation of the position of the sun and the earth, by the study of the stream, the rain, and the changes of temperature; astronomy by the study of the heavenly bodies; botany by the study of plants; the necessary facts and fundamental principles of physics and chemistry by observation and experimentation; mathematics as it is needed in these other activities and in economic relations; history only through reading. Geography, history, and all subjects are to begin at home; only that which can be thoroughly comprehended should be attempted, and only that which is mastered should be passed over. "In general, never substitute the sign for the thing itself, save when it is impossible to show the thing; for the sign absorbs the attention of the child and makes him forget the thing represented." Most widely heralded educational discoveries or reforms of the present are but restatements or other attempts at realizing these principles formulated by Rousseau.

The Child the Positive Factor in Education. — To John Locke belongs the honor of writing the first book on education that deals primarily with the child; but to Rousseau belongs the honor of deriving his educational theories from the nature of the child. It may be admitted that Rousseau had little actual knowledge of child life and child nature and that his sympathy for children was pure sentimentalism, which was never converted into actual practice; but it is nevertheless true that here first education finds its purpose, its process,

and its means wholly within the child life and the child experience. An appropriate development of childhood is the purpose of each particular stage of education; the child's nature and the child's growth are to determine the process; the child's experience is to furnish the means. All of the pregnant reforms of Pestalozzi, of Herbart, of Froebel, and of the multitude of other reformers of lesser influence thus find their origin in the teachings of Rousseau.

In a similar way sympathy with childhood is emphasized as the qualification for all educational work. "O men, be humane; it is your foremost duty. . . . Love childhood; encourage its sports, its pleasures, its amiable instincts," exclaims the man who forgot much of his own precepts in his own practice. Made theory by Rousseau, made practice by Pestalozzi, sympathy with the child, intellectually, morally, personally, has come to be recognized as an essential in the educative process.

The Foundation of the Nineteenth-Century Educational Development. — Finally, it is to be noted that in Rousseau's teachings, notwithstanding their extravagance, is to be found the truth upon which all educational development of the nineteenth century is based. Rousseau was the prophet denouncing the evil of the old; foretelling, yet seeing vaguely and in distorted outline, the vision of the new. He became the inspiration of those educational reformers who reduced his vagaries to practicable procedure. He was the forerunner of many who, all unconscious of their indebtedness to the despised revolutionist, have followed in the trails he blazed through the forest, until now they have become the broad highway of common travel. The three interpretations which Rousseau gave to his doctrine of nature mark out the lines of educational development during the nineteenth century.

As nature to Rousseau meant the native instincts, tendencies, capacities of the human being as opposed to those acquired through association with his fellows, he demanded

an education which was the unhampered development of these native powers or capacities. Hence the conscious process of instruction must be based upon a study of this native equipment, these natural instincts and interests, and the resulting activities. There grew out from this, especially in connection with the work of Pestalozzi, Herbart, and Froebel, the most important and most fruitful development in the whole history of education. The fundamental idea of this tendency in educational thought derived from Rousseau is that education is a natural process, starting from natural instincts and tendencies to action, guided by principles derived from the study of the child mind in development and the adult mind in its functionings. Thus from Rousseau comes the psychological tendency in education.

In a similar way Rousseau's teaching that the educational material should be the facts and phenomena of nature, that it should consist chiefly in an inquiry into nature's laws, and should be through an intimate, fearless, and constant association with nature rather than man, is the basis for the scientific tendency in modern education. This is not to say that Rousseau's personal or literary influence is responsible for the development of science and of scientific education during the nineteenth century, but that his teachings did lay an educational basis for this tendency and did exert a very material influence in furthering it.

Finally, in Rousseau's teaching that education should aim to develop the virtues of the primitive man, or at least what he considered to be his virtues, that it should prepare the individual to live in a society wherein each should contribute by his own labor to his own support, should be bound by sympathy to all his fellow-men and by benevolence to all that needed his aid, he laid the foundation for, or at least influenced the development of, the sociological tendency in education. In his individualism he clearly emphasized the idea of a social education of a new type. In his emphasis on the

learning of a trade or occupation as a component part of education, in his emphasis on certain fundamental social virtues, in his rejection of the formal education of the times fostered by and fostering in turn the dominant aristocratic classes of his day, in his emphasis upon the emotional and moral as opposed to the intellectual aspect of education, he introduced some of the tendencies that have come to be incorporated, with others already at work in his own times, into the sociological conception of education.

This threefold influence of Rousseau on education and the actual work of the school can be illustrated by the parallel influence which he exerted upon literature. This influence upon literature was more immediate and direct, but not any more real or profound than that on schools. From Rousseau came the great movement in romanticism of the later eighteenth and early nineteenth century. The combination of the heroic in action, the dominance of the passions, the glorification of the sentimental, find here an exposition little less extreme than the more brutal and more frank realism of the earlier period. Attention is turned from personal adventures and social intrigues to the analysis of passions and the descriptions of inner conflicts. The romantic movement in literature is no less a development from Rousseau than the psychological movement in education.

In a similar way Rousseau first made the element of the natural environment a fundamental element in the story of human emotions. With him began the tendency to incorporate into the novel the detailed pictures of natural scenery that should form an appropriate setting for the drama of human life wrought out on the stage of the printed page. The feeling for the beautiful in nature found in him one of its most brilliant and most devoted exponents. In literature, he was the first to revel in the charm of the country and to seek to analyze the influence upon character, of nature, of the mountains, and of the lakes. Thus his influence in edu-

cation toward the use of natural phenomena as the subject matter and the close contact with nature rather than with books as the method, finds a further parallel in his literary influence.

One further parallel presents itself. Though here Rousseau cannot be said to be an initiator, but rather an imitator of the prevailing English school, he transferred the interest in literature from the palace to the hovel, from the lord and lady to the commonplace mortal. Minute descriptions of the life of the common people and of life in the country, more typical of realism than of romanticism, crowd his one great novel, — the *Nouvelle Héloïse*, — as well as his *Confessions*. Bourgeois morality is exalted; commonplace people occupy the stage hitherto reserved for the quality; the social problems of the masses permit the occasion for the plot, for description and for moralizing. What might be termed a sociological tendency in literature, corresponding to the one in education and illustrative of one great aspect of Rousseau's "doctrine of the natural state," here receives a tremendous impetus.

EFFECT UPON SCHOOLS. — When inquiry is made for the influence of the "naturalistic" tendency on schools, the answer is not immediately forthcoming. So profound a movement does not have its effect immediately. The answer to this inquiry is secured only when the results of these later tendencies, especially of the psychological, are discovered. Immediately the effects were slight; ultimately they were so general as to defy measurement.

In France, where the influence of Rousseau on thought and sentiment was most profound, the old régime was so thoroughly intrenched in the social organization that change could come only as a result of a violent revolution. In addition to this the teachings of the *Émile* were looked upon, as, indeed, they were, as direct attacks upon the aristocracy

and upon the Church. Hence the vested interests and authority of both were invoked against it. Many of the *cahiers*,[1] or books of wrongs and grievances of the early Revolution, contain complaints and recommendations concerning schools. In general, a demand was made for a national plan for education. The work of the Revolution was chiefly to lay the basis for the institutional organization of education. Little was carried out, but much was projected. Only with certain phases, and those not the most important, can the influence of Rousseau be connected. Education was to be universal and to be free; but it was also to be largely political and social. Even this work, the discussion of which belongs more properly under the sociological tendency (p. 731), was largely checked by the Napoleonic reaction.

In England, where Rousseau's literary influence was very great and where his social ideas found many converts, his educational ideas received little support. True, they called forth considerable literature on the subject; but as England lacked any system of schools and as education, though controlled to a great extent by custom, was left almost wholly to the individual, there was little response in practice. The more restricted and more common-sense naturalism of Locke, combined as it was with the dominant disciplinary conception, recommended itself much more strongly to the matter-of-fact Briton. The one of these treatises on education of greatest originality was William Godwin's *The Enquirer*. There is nothing peculiarly original in this, — in fact, it does not approach the breadth of interest or of insight of the *Émile*. In simple essay form many of these principles of naturalistic education are set forth. The following paragraph gives, as nearly as a single statement can, the underlying thought of these somewhat scattered essays.

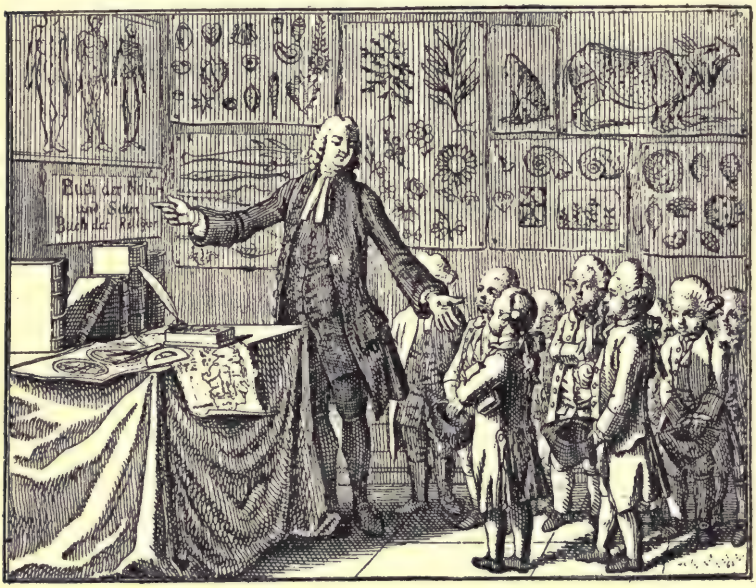
[1] Each of the three estates in every district drew up a *cahier;* the representatives of that estate from every district in the province compiled from these a provincial *cahier;* in the States-general a committee of each estate formed from these a general *cahier* for its own estate, and these were presented to the king.

"According to the received modes of education, the master goes first, the pupil follows. According to the method recommended, it is probable that the pupil should go first and the master follow. If I learn nothing but what I desire to learn, what should hinder me from being my own preceptor? The first object of a system of instruction is to give the pupil a motive to learn. We have seen how far the established systems fail in this office. The second object is to smooth the difficulties which present themselves in the acquisition of knowledge." The method appropriate to this has thus previously been described: "The most desirable mode of education, therefore, in all instances where it shall be found sufficiently practicable, is that which is careful that all the acquisitions of the pupil shall be preceded and accompanied by desire. The best motive to learn is a perception of the value of the thing learned. The worst motive, without deciding whether or not it be necessary to have recourse to it, may well be affirmed to be constraint and fear."

The Work of Basedow, Salzmann, and Campe in Germany was the immediate outgrowth of Rousseau's influence, and represents the first positive formulation in practice of those revolutionary ideas given only a negative form by Rousseau. But with these, as later with Pestalozzi and others, much of the positive formulation was subject to the same criticism that held in the case of the original statement of Rousseau.

Johann Bernard Basedow (1723–1790) gave in his early career and in his irregular course as a student evidence of his erratic though talented nature and of his unstable character. Becoming professor of philosophy in a Danish Academy (1753) he was later transferred (1763), and, though yet salaried by the government, was soon compelled to give up all teaching on account of his unorthodox views. From 1763 he deluged Germany for many years with a succession of publications, and by his persistency succeeded in making his influence felt in spite of violent opposition on the part of all the traditional orthodox forces. For the first few years he was chiefly interested in reform in philosophical and religious teaching;

most of his publications were of a religious character, propagating Rousseau's idea of natural religion and morality. The one of his books most violently resented was *Methodical Instruction, both in Natural and Biblical Religion.* Coming under the influence of the *Émile*, from 1767 he directed his attention wholly to educational reform. In 1768 he issued *An Address to the Friends of Humanity and to Persons in*



A "NATURALISTIC" SCHOOL, FROM BASEDOW'S *Elementarwerk*.

Power, on Schools, on Education, and its Influence on Public Happiness, which contained a plan for a complete system of reformed elementary education. Advertised through many preliminary publications, supported by subscriptions from all parts of Europe from royalty and commonalty alike, this *Elementarwerk* finally appeared in 1774. At the same time was published his *Book of Method for Fathers and Mothers of Families and of Nations.* This *Elementary Work,* for chil-

dren, which appeared in four volumes with one hundred plates of illustrations, was a combination of the ideas of Comenius, Bacon, and Rousseau. It was the first step since the time of Comenius to improve the character of the work of the school through the preparation of appropriate text-books and the radical revision of the subject-matter of school work. It aimed first of all to give a knowledge of things and of words quite similar to the encyclopedic plan of the seventeenth-century reformer. This knowledge was primarily a knowledge of natural phenomena and forces; in the next place, a knowledge of morals and of mental phenomena; and, lastly, of social duties, of commerce, of economic affairs. In these latter the Rousseau ideas were approximated. The "natural methods" of Rousseau appeared as the second great feature of the book. Thus through the "method of experience" children were to be taught to read, both the vernacular and Latin, without weariness and without loss of time; and in a similar way the truths of religion and of morality were to be imparted without the accompanying prejudices, narrowness, and formalism of existing religious teaching.

If we are to accept the estimate of the historian of the times, these volumes were soon in almost every home of the middle and upper class in Germany, just as were the *Émile* and the *New Héloïse* of Rousseau in the preceding decade. As Basedow aimed to reform private as well as public education, the effect of this propaganda was profound, even if the character of the education imparted could not be so characterized.

Basedow and his followers, among whom Salzmann and Campe were the most important, soon produced a wholly new literature for children. As for the first time there was an education designed wholly for children, not controlled by the needs, character, and interests of adults, so also this was the first literature designed for children. Concerning the work of these men Schlosser,[1] the great German historian of the eighteenth century, remarks: —

[1] *History of the Eighteenth Century*, Vol. II, pp. 203–204.

"They and their successors and imitators soon deluged Germany with a silly literature for children, and sought to bring up little children in such a way as to make grown people into children. They were zealous opponents of both Jesuitical and pietistic education, because they, as well as the Jesuits, understood how to obtain the favor both of children and parents. They put an end indeed to all pedantry, but we must ascribe to them and their plans the sauciness and pertness of that all-knowing and therefore ignorant and presumptuous generation of youths, who have been superficially educated by them, and of whom we have so many examples."

It is not to be understood that Basedow's work was all positive and constructive. The greater part of it, especially his early work, was critical and destructive; and much that aimed to be constructive was ill-founded, erratic, overpretentious, superficial, and hence ineffective. Basedow himself was even less fitted than Rousseau to be an educational reformer. It is sufficient to say of him personally that he was vulgar, immoral, intemperate, given to the vices of the peasantry from which he sprang without possessing their fundamental virtues; above all it cannot be doubted that he was in some respects an impostor and a mountebank. On the other hand he possessed an intellectual ability, a definite aim to reform the educational practices of his time, a tenacity of purpose worthy of the cause in which he enrolled himself, a rationalistic insight into affairs, and a power of arousing enthusiasm in others. Notwithstanding these defects and the fact that he was totally unable to carry out his own reform plans because he was so unpractical, Schlosser states that "he succeeded in effecting a complete change in the whole nature of education and instruction in Germany, which Rousseau was able to accomplish neither in his native country nor in France."

The Philanthropinum.[1] — In 1774 was founded the long-

[1] A concrete description of the work of the Philanthropinum, translated from Von Raumer, is to be found in Barnard's *German Teachers and Educators*, p. 462.

heralded institution, erected to illustrate the principles of reformed education and termed the Philanthropinum. This institution at Dessau was the parent of many others, more or less short lived, but existing long enough to exert a profound influence on the education of children throughout the Teutonic countries. It is said that educational institutions sprang up everywhere like factories. After the final overthrow of the Philanthropinum, through defective management, "the teachers from Dessau were scattered about in all parts of Germany, and each applied Basedow's ideas according to his own plan, they erected institutions, and converted what had been previously an honorable office into a trade."[1]

The fundamental idea of the reform was "education according to nature," which was interpreted to mean that children should be treated as children, not as adults; that languages should be taught by conversational methods, not through grammatical studies; that physical exercises and games should find a place in the child's education; that early training should be connected with "motion and noise," since children naturally love these; that each child should be taught a handicraft, for reasons partly educational, partly social; that the vernacular rather than the classical languages should constitute the chief subject-matter of education; that instruction should be connected with realities rather than with words.

The objects of the institution were to educate the rich and poor together, to give the former a proper natural education for social activity and leadership and to prepare the latter to teach. Under more competent hands the institution continued until 1793; meanwhile, many similar institutions were under way, two or three of which were widely influential. The strong emphasis upon the training of teachers reacted favorably upon the entire German school system.

[1] Schlosser, Vol. II, p. 205.

The introduction of "turning, planing, and carpentering' into the regular course of study of the Philanthropinum for educational purposes is the earliest practical recognition of the purely educational value of positive character to be found in manual work. School instruction from objects and from pictures here first found an elaboration in actual school work. The connection between the out-of-door life and the process of instruction was made more intimate. The principle that all instruction has a moral because a practical outcome, and that formal moral instruction is of little value when not thus connected, was embodied in their work.

From the later pages of this book it will be recognized that all of these ideas are worked out more explicitly by later reformers, especially Herbart, Pestalozzi, and Froebel. However crudely they were realized in the work of Basedow, his work was of sufficient merit to command the approval of Kant, while the general ideas and the man himself received the commendation of Goethe. Though Basedow was without question much of a charlatan in his educational work, as he was also a drunkard and an impractical visionary, at the same time his work undoubtedly initiated the reform movement in the German schools. His methods of instruction in geography, physics, nature study, history, geometry, and arithmetic were as revolutionary and as fruitful as those of Pestalozzi, and his application of them was quite as successful. But since the later reformer came to a clearer consciousness of the principles underlying the new, and gave the Rousseau influence the particular tendency in regard to method along which it afterward developed, further considerations of the movement must be given in that connection. However, it is well to remember that the common practice of attributing the reform in education throughout the Teutonic countries to Pestalozzi is an erroneous one, and that at an earlier period Basedow had exerted as profound an influence toward practical reform as did Pestalozzi a generation later.

The latter reformer but continued along slightly different lines the movement initiated by Basedow and popularized by his followers.

Joachim Heinrich Campe (1746–1818) was the leading follower of Basedow, his successor at Dessau, the founder of a philanthropinum at Hamburg, and the author of a great number of works embodying the idea of the new education. His *Robinson der Jüngere* (1779) was the model for Wyss' *Swiss Family Robinson*, familiar to children of every land. The didactic character, the penchant for information, especially for that of natural phenomena, the familiar moralizing, the religious coloring, one might almost say the cant, that pervades this little volume is characteristic of the entire movement. Among Campe's works are many for teachers. He also translated the works of Locke and Rousseau as a basis for the educational reform movement.

Christian Götthelf Salzmann (1744–1811) was, next to Basedow and Campe, the most prominent of these exponents of the new education and a most voluminous writer on education. Most of these writings sought to combine a strong religious and moralizing tendency with the naturalistic tendencies of Rousseau. As with Campe, Salzmann, in his attempt to embody these ideas in a new educational material, produced many popular works for children.

These men were followed in turn by a multitude of minor educators, many of them pretenders, who sought to take advantage of this serious reform movement, merely for their own advantage. As the philanthropinist movement was an eminently practical one, this was most easily accomplished.

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TOPICS FOR FURTHER INVESTIGATION

1. What ideals of education can you discover in Lord Chesterfield's *Letters to his Son?*

2. What agreement is there between the educational ideas of "the Enlightenment" and those of Montaigne?

3. What parallels and what connections can be discovered during the eighteenth century between the development of either philosophical, religious, or political thought and educational thought?

4. In their educational bearings what similarity is there between "the Enlightenment" and the fifteenth-century Renaissance?

5. What justification can you find in the *Émile* and in the other writings of Rousseau for this threefold interpretation of the naturalistic doctrine?

6. What concrete evidences and results of each aspect of naturalistic education are to be found in the *Émile?*

7. To what extent is Rousseau correct in his contention that education should be negative?

8. What defects can you point out in Rousseau's ideas of moral education?

9. What are the details of Rousseau's ideas of the education of women, and wherein do they controvert his general educational principles?

10. To what extent did Jefferson and the early American statesmen owe their ideas on education to Rousseau; or to what extent, at least, is there a similarity between them?

11. What similarity and what differences of views between Rousseau and Locke are to be found? Between Rousseau and Montaigne?

12. What basis does Rousseau offer for the doctrine of self-activity emphasized by Froebel? For the doctrine of interest?

13. To what extent are Rousseau's principles of education applicable at the present time?

14. Which of Rousseau's ideas concerning education would be rejected now?

15. Give a statement in positive form of the ideas stated negatively by Rousseau.

Chronological Table of Educational Development during the Nineteenth Century

Political Events and Personages	Literary Men, Religious Leaders, etc.	Scientists and Philosophers	Educational Writings and Educators	Educational Events
1800.	Goethe 1749–1832	Hegel 1770–1831	Pestalozzi, *How Gertrude Teaches* . 1801	1803. Sunday-school Union f.
1804. Bonaparte emperor.	Wordsworth 1770–1850	Cuvier 1769–1832	Jacotot 1770–1840	1805. Public School Society of New York.
1807. Class distinctions and serfdom abolished in Germany.	Byron 1788–1824	Comte 1798–1857	Herbart, 1776–1841	1806. University of France f.
1814. Bonaparte at Elba.	Scott 1771–1832	Faraday 1791–1867	Froebel 1782–1852	1806. Neef introduces Pestalozzi in United States.
1815. Congress of Vienna.	Coleridge 1772–1834	Hamilton 1788–1856	Thomas Arnold 1795–1842	1808. First treatise on education published in United States.
Frederick William 1797–1840	Irving 1783–1859	Liebig 1803–1873	Rosmini 1797–1855	1809. University of Berlin founded.
1810–1830. Freedom of South American States.	Cooper 1789–1851	J. S Mill 1806–1873	Herbart's *General Pedagogics*, 1806	1808–1811. Von Humboldt head of German schools.
1817. Wartburg demonstration for freedom.	Emerson 1803 1882	Herbert Spencer 1820–1903	Horace Mann 1796–1859	1804–1844 Fellenberg's School at Hofwyl.
1830. July Revolution in France.	Thackeray 1811–1863	Buckle, *History of Civilization* 1857	Rosenkranz 1805–1879	1811. National Society for Promotion of Ed. of the Poor.
1830. Reform bill in England.	Dickens 1812–1870	Darwin, *Origin of Species* 1859	George Combe 1788–1858	1813 First State superintendent of ed. in United States (N.Y.).
1833. Slavery abolished in British colonies.		Agassiz 1807–1873	Froebel, *Education of Man* . . 1826	1814 British and Foreign School Society.
1846. Corn laws repealed.		Darwin 1811–1882	Spencer, *Essay on Education*, 1861	1818. Lancaster comes to U.S.
1848. French Revolution.		Wallace 1820	Alexander Bain 1818–1887	1821. First legislative aid for education of women (N.Y.).
1851. New French Empire.			Henry Barnard 1811–1900	1821. First High School (Boston).
1854. Crimean War.			Stoy . 1815–1885	1827. All schools free in Massachusetts
1870. Franco-Prussian War.			Otto Frick 1832–1892	1835. Cousin's *Report* published in United States.
1871. German Empire founded.			Tuiskon Zeller 1817–1883	1837. Mount Holyoke seminary for women.
1871. The Union of Italy.			R. H. Quick 1831–1891	1837–1849. Mann Secretary of Mass. Bureau of Ed.
				1837. First kindergarten.
				1837. First city superintendent of schools.
				1838. First State normal school in United States (Mass.).
				1843. School Board in New York City.
				1850. Kindergartens forbidden in Germany.
				1860. First kindergarten in U.S.
				1861. First Ph.D. in U.S.
				1862. Morrell land grant for agricultural and technical education.
				1867. Elective system at Harvard.
				1867. United States Commissioner of Education.
				1867. All State schools free in New York.
				1869. English Endowed School Act.
				1870. Elem. Ed. Act in Eng.
				1873. Kindergarten part of public school (St. Louis).
				1890. Berlin School Conference.
				1896–1897. University of France reorganized.

CHAPTER XI

THE PSYCHOLOGICAL TENDENCY IN EDUCATION

THE GENERAL CHARACTERISTICS. — These three tendencies, the psychological, sociological, and scientific, growing out of the thought of the later eighteenth century, developed together and are not always clearly distinguishable in time, in place, or in personnel. So far as its full effect on schools was concerned, the psychological tendency, relating chiefly to educational method, had some precedence in time over the scientific tendency, relating chiefly to subject-matter, and over the sociological, relating both to subject-matter and to organization. As the direct outgrowth of the naturalistic tendency, the psychological tendency has the logical claim to first consideration.

In the summary of the general educational results of the naturalistic movement, it will be recalled that all those influences, save possibly one, related to the method of education as method grows out of the nature of the child. The psychological tendency was simply the clarifying and developing of these positions; for certainly the basal thought of the psychological tendency was that education is not an artificial procedure, by which one comes into possession of a knowledge of the forms of language and literature or of formal knowledge of any sort, but that it is a natural process of growth from within, of an unfolding of capacities implanted in our nature. In other words, education was considered as a development, or organic growth, which could be hindered or helped by the methods in which the natural capacities or activities were treated. The great difference between the

Rousseau ideas and the psychological principles was that the former were mostly negative and destructive; while the psychological tendency was the effort to state these ideas in positive form and to give the influences a concrete formulation in actual school procedures. In one respect the central thought of the psychological tendency, as expressed by its leading exponents, was a radical advance beyond that of Rousseau. The naturalistic tendency had opposed most violently the dominant education of the school, whose spirit and purpose were represented in the disciplinary conception of education. The psychological tendency, on the other hand, sought a reconciliation of the conflict between the old "education of effort" and the new "education of interest." But since the old remained intrenched for many decades of the nineteenth century, and the work of the new was to destroy it by conflict, it was this latter aspect of conflict rather than that of reconciliation that was ever most prominent. The fact that the rank and file of the new educators — those that followed the lead of the few great exponents without having their grasp of the problem — emphasized almost exclusively the importance of *method*, and in this connection the importance of interest also, led to emphasis upon conflict rather than upon reconciliation. For while the philosophical statement of theory by the leading exponents of the new recognized the importance of effort, it was in regard to details of method that the conflict was most apparent and seemingly most irreconcilable. Having in mind, then, simply the historical aspect, and that chiefly as it affected the schools previous to the last twenty years, one may say that the psychological movement, as here limited, continued the period of conflict. The attempt at reconciliation becomes prominent in the contemporary aspects of thought and practice, in which the psychological tendency becomes fused with other nineteenth-century tendencies, and is to be considered in the concluding chapter.

However profound may have been the effort of Herbart and Froebel to effect this reconciliation, in the popular conception there was an irreconcilable opposition. A brief extract, contrasting the main ideas of these two views, taken from a review of one of Pestalozzi's works by Caroline Frye in her *Assistant of Education*,[1] will serve as an illustration.

"Of the second work, Pestalozzi's *Letters on Early Education*, we have little to say. A book written for the inhabitants of Mars, if there are any, would almost as much come under our task of criticism. If there be a people between the Alps, in the bosom of whose offspring there is an innate principle of faith and love, that needs only to be cultivated and cherished by the sacred power of innocence, to produce pure morality and exalted devotion, this book belongs to them. It need not have been put into English, or any language into which the word of God has been translated; for it belies it utterly. We have no such children to educate, and therefore the book is useless to us. I could not help comparing the following passage, one among many such, of Pestalozzi — 'I would, in the first place, direct your attention to the existence and the early manifestation of a spiritual principle, even in an infant mind. I would put in the strongest light that there is in the child an active power of faith and love; the two principles by which, under the divine guidance, our nature is made to participate in the highest blessings that are in store for us. And this power is not, as other faculties are, in a dormant state in the infant mind. While all other faculties, whether mental or physical, present the image of utter helplessness, of a weakness which in its first attempts at exertion only leads to pain and disappointment, that same power of faith and love displays an energy, an intensity, which is never surpassed by its most successful efforts when in full growth' — we could not help comparing with curiosity this dream of Socinianism, with some sentences from a Christian author[2] we happened to take up on the same day: — 'No sooner do children begin to act at all, but we discover how universally sin has pervaded all the sources of intelligence. There is a greater pleasure in reflecting on the images of crime than

[1] Vol. IX, p. 363. [2] Newham, *On the Principles of Education.*

on the character of piety; the conscience is enfeebled and oppressed; its voice is stifled and its actions perverted; the imagination delights to revel over scenes of iniquity, and is difficultly carried forward to anticipations of future happiness, glory, and praise: the will is enslaved by selfishness; the imitation of all that is wrong is most easy, — of all that is right is most onerous, — the judgment is prone to perpetual error; the evil passions grow and flourish, while the good are educated with difficulty.' The Christian mother will compare these opposing principles with the testimony of Scripture and of her own heart, and will have no difficulty in deciding in which author to study the principles of education."

The emphasis upon interest and the conception that education is but a development of germs, or powers, implanted in the child's nature, formed but part of a large thought which constituted an essential of this tendency. The idea that education should be according to nature, which constituted an aspect of the thought of the sense-realists as well as that of Rousseau, now took more definite shape as a newer conception of human nature tends to take the place of the old one that had prevailed so long. This newer conception in education was closely bound up with that which at the same time was taking shape in philosophy and in science. Educationally "nature" now came to indicate the nature, or mind, of man; and the principles upon which education was to be based were now sought for in the principles of activity and of development of the human mind. It is true, however, that the scientific formulation of these principles of psychology, as based upon an accurate scientific knowledge derived by observation and experimental method, was hardly begun before the middle of the nineteenth century, and that the application of these to education is yet largely the work of the future; but the movement itself was begun in the early part of the century.

However much the Middle Ages had modified the psychology of Aristotle, no advance was made until the opening

of the modern philosophical and scientific movement, which was the source of the educational movement described under the term sense-realism. Descartes, and after him Hobbes and Spinoza, had emphasized the relationship between physical and mental processes. While this was the key to the solution of the psychological problems, its general significance was not grasped until later. Locke, who was not primarily a psychologist, attempted to show that all knowledge is due to the data given by sense-perception and reflection. This again emphasized the dependence of the psychical upon physical processes and the importance of training of the sense organs; but its chief immediate influence was that upon the associative theory of knowledge, which practically controlled throughout the eighteenth century. With the opening of the century there came a marked development of the idea of psycho-physical parallelism, due especially to Herbart and Hartley. Herbart investigated the origin and development of space and time relations — aspects of the mind's activities previously held innate — as connected with sense perceptions and physical processes. Herbart mentioned experimentation and experience along with metaphysics and mathematics as the three sources of knowledge of the mind. Yet, so far as his dominant attitude is concerned, he is yet classed with the old psychologists, who based their interpretation of mental phenomena on metaphysical grounds. But in completely throwing over the old psychology of the faculties, he is held to be the founder of the new. So in Herbart, who played so important a part in this educational development, psychology finds the dividing line between the old and the new. Pestalozzi's gropings after these principles of education, founded in a new and truer conception of the human mind, were purely empirical. Even the interpretations reached by Herbart have had to be reformulated — many of them to be entirely rejected. But the significant

truth reached was the conviction that this more accurate interpretation of human nature, based upon a careful scientific study of the mind, was now possible, and that an adequate conception of education and any formulation of more fruitful processes of instruction must be based upon the results of such study. To this general tendency, vague and indefinite as it was in its application to education, we have here given the term psychological. The most that can be essayed in this limited space is an account of what those of the leading innovators in this line attempted.

One further characteristic of this tendency which, as just seen, may not be quite adequately characterized by the term psychological, is that it aimed at improvement in the character of education; whereas the complementary movement, which in the same general way may be characterized as sociological, aimed at the more general diffusion of education. The interest of the men included in this group, or — more accurately — the modifying influence of these tendencies included under this term, was directed chiefly to the improvement in the method of instruction, in the spirit of the schoolroom, in the character and training of the teacher, and in the popularization of a broader and truer conception of the nature of education.

Thus there followed a sympathy for childhood, a knowledge of the child, of the child mind, of the child's interests and abilities, that were wholly unknown in previous periods and entirely absent from the schoolroom in all previous ages. While the actual knowledge of the child mind was at first slight and for a long time was gained by empirical means alone, yet educational practice came to be based upon a study of childhood, and the theories concerning education came to be formulated from data gathered during actual contact with the child.

Consequently, the chief interest in education was diverted to an entirely different phase of the educational process. For

many centuries, it will be recalled, the interest in education was in the secondary and higher stages. All the early reformers, the realists as well as the humanists, thought especially of the acquisition of foreign languages and literature as the chief work of education. Little or no attention was given to the elementary stage. Comenius, it is true, wrote of infant and vernacular schools, but he supervised and wrote text-books for the Latin schools. The chief immediate interest of almost all those participating in this new tendency, notwithstanding the fact that Herbart made use of the Greek and Latin for his educational instruments, was in the elementary stage. Pestalozzi's ideas and practices are limited to work in reading in the vernacular, to writing, and to arithmetic. While Froebel wrote concerning the philosophy of education as a whole, his practical work and influence was confined to the earliest stages. From that time to this the formulation of educational theory and the improvement in educational practice has, with few exceptions, related primarily to elementary education. Since most educational principles have been formulated with the problems of elementary education only in mind, and since many such principles have been projected, without sufficient adaptation, to apply to higher stages, when applicable in the given form only to those conditions from which deduced, this condition has often resulted in confusion.

A fundamental conception of the psychological tendency — that education is the process of the development of the individual — accorded with the individualizing tendencies of the later eighteenth and first half of the nineteenth century, and with the ideas of social progress, of biological development, and of evolution in all its scientific and philosophical implications, that during the same period were becoming clarified. Though stated in quite different terms now, the thought and even the form accepted for two or three generations was that given by Pestalozzi; namely, that education was "the har-

monious development of all the powers of the individual. The same general idea, in different terminology, due to more accurate knowledge of psychology, is now expressed in terms of "organization of acquired habits of action or tendencies to behavior." This conception of education in terms of individual development is an essential feature of the psychological conception of education, and is one great contribution of the late eighteenth and the early nineteenth century to education. Nevertheless, this conception has its sociological significance and coincides with the tendency to universal education in one respect; namely, if education is the process of development of the individual, if it is at basis a natural rather than an artificial process, it is a process through which all human beings go and a process from the regulation and direction of which all can profit. Consequently there results an emphasis upon popular and universal education that was not possible so long as the chief interest was in higher education, and so long as education was the process of giving to the child or forcing on the child the ideas, emotional reactions, and activities of adults.

PHILOSOPHICAL ASPECT OF THE MOVEMENT.— Closely related to the psychological tendency was the philosophical. So closely related in fact that instead of two movements the psychological movement may be considered as possessing two aspects, one practical and concrete, which through experimentation attempted to work out general principles, the other metaphysical in its characteristics and aiming at the formulation of the logic of education. It is only the former that can be considered here, since the men representing the practical movement — Pestalozzi, Herbart, Froebel — but expressed the dominant ideas gained from the thought movement typified by Kant, Fichte, Schelling, Schleiermacher, and Hegel. As occupants of chairs of philosophy, these men found it part of their duty to lecture on education, yet

with most it was of subsidiary interest. The one man who represented both movements was Herbart. There are many of less prominence in both groups, especially in more recent times, whose writings, though of value, and whose influence, though of importance in their respective countries, cannot be discussed here.

The Philosopher Kant (1724–1804) had as a part of his scholastic duties the delivering of a course of lectures upon education. The notes of these were published in 1803 under the title *On Education* (*Ueber Pädagogik*). Much in these was carried over from his philosophy and ethics; much was common to the thought of the times. In fact, his work reads like a combination of the familiar ideas of Locke and Rousseau, in which the extreme naturalism and freedom of the French emotionalist is tempered with much of the discipline of the English rationalist. The groundwork of the treatise is given in the first paragraph: "Man is the only being who needs education. For by education we must needs understand nurture (the tending and feeding of the child), discipline and teaching, together with culture. According to this, man is in succession infant (requiring nursing), child (requiring discipline), and scholar (requiring teaching)." While the germs of development are in nature, it is only through education that they are perfected. "There are many germs lying undeveloped in man. It is for us to make these germs grow, by developing his natural gifts in their due proportion, and to see that he fulfills his destiny." Thus is suggested one of the earliest harmonizations of the education of interest (nature) and the education of effort (discipline). While Kant follows Rousseau in insisting on the education of the child for himself, yet he maintains that his education must be "not for the present, but for a possibly improved condition of man in the future." The treatment of the subject divides into four topics; through education man must be made subject to discipline, must be supplied with

culture, endowed with discretion, and be made moral Through discipline the unruliness of nature is subjected to reason. Through culture, consisting of information and instruction, ability is brought out which later may be applied to various ends determined by moral and practical education. Through discretion one is enabled to conduct himself with propriety and refinement in society. Through moral education one's disposition is so trained that he chooses only good aims in life. This latter, so neglected in education, is in reality its highest end.

Johann Karl Friederick Rosenkranz (1805–1879), the successor of Kant and Herbart in the philosophical chair at Königsberg, published a *Philosophy of Education* in 1848, which was largely an interpretation of the philosophy of Hegel in educational terms. Man's true nature is his ideal nature, found at birth only in germ but developed by a process of education. This process consists in the putting away or suppression of his first or animal nature by a process of "estrangement" and of gradual approximation to his ideal nature by an assimilation of those things which belong to culture. Education is a process of "self-estrangement" and of "identification" with the self of that which was previously foreign and existed only in the ideal. Through the application of this principle to various phases, a philosophy of moral and religious as well as intellectual education, of discipline, of method, and of the history of education is worked out.

The interest felt in the formulation of the problems of education by this group of men is largely of a theoretic character; the practical bearing is given through those mentioned in the other group.

The Phrenological Movement. — One other aspect of the psychological tendency, in its earlier form, needs to be mentioned at least on account of its historical association. This was the widely popular "science of phrenology," now so discredited that its advocacy is immediately condemned as

charlatanism. In its earlier stages, however, this movement had a far more respectable following and an educational influence of no mean character. The major premise of the doctrine of the phrenologists is the belief that all nature is governed by law and that there is a close relationship between the physical and psychical; its minor premise, that many mental functions have localized brain centers. Both are accepted by present science. Modern investigators have, however, rejected its conclusion that any mental trait is proportionate in strength to the size of a given identified portion of the brain organism and that this importance is indicated by external conformations of the skull. That it was no charlatanism in its day is indicated by the men who were prominent leaders in the movement and by its educational influence. Lavater and Spurzheim in Germany, George Combe in England, Horace Mann and Fowler in the United States, were its chief exponents. In Germany the movement soon coalesced with the more scientific psychological movement; in England it realized itself in the demand for scientific education; while in the persons of Fellenberg, Combe and Mann, in their respective countries, it revealed its practical importance. As the "science of mental faculties" it was an extremely empirical and practical psychology that appealed to many men with little scientific training.

THE PESTALOZZIAN MOVEMENT. Character and Significance of his Work. — It must be understood at the outset, that much more is included under this subject than the personal work and influence of Pestalozzi; for it is a very common error to overestimate the importance of this one reformer in the history of education, and a gross exaggeration to attribute to him the entire educational reform movement of the early part of the nineteenth century. On the contrary, Pestalozzi but made positive and concrete the negative and general educational principles enunciated by Rousseau; and

as we have seen, there were many others, notably Basedow and his group, who were successfully engaged in the same work. Pestalozzi himself says of these: "Ignorant and impractical as I was, but with my power of comprehension and simplifying, I was at the same time the lowest hedge schoolmaster and also reformer of instruction — and this in an age in which, since the epochs of Rousseau and Basedow, half the world had been set in motion for this purpose." On the other hand, the ideas and practices generally grouped under his name are largely due to the work of his assistants and of the innumerable teachers of succeeding generations who have labored along the lines first indicated by him. No one has been more insistent than Pestalozzi that his ideas were not realized by himself or by his assistants, and that it was for the future to work them out in reality. He it was who first made clear and forced upon the public the position that the whole problem of education was to be considered from the point of view of the developing mind of the child. This view was not wholly original with him, for it had been suggested by others; but he first made the schoolroom world conscious of its importance, and therein lies his greatness. Around him centered the controversy concerning the new point of view of method in education, and to him and his followers was due the initial propaganda. To his co-laborers should be credited much of the concrete statement of the new ideas; to his successors, including the great number of unnamed but earnest and clear-sighted teachers everywhere, is due the perfecting of them. Later educational theorists, especially the two considered in this chapter, possessing all of the practical insight of Pestalozzi, with fuller philosophical penetration than his, together with broader knowledge, have built upon his work a more extensive and stable structure of educational doctrine than could the Swiss reformer.

In his writings there are many blunders, — there must be some for there are many contradictions; and the man who

boasted that he had not read a book in thirty years, in an age when all advance in thought was crystallized in literature, could hardly avoid some error. His practices were full of absurdities, — how otherwise could he have explained the many failures in the application of ideas held to be the only correct ones? The desire to be novel at every point in the rejection of the old school routine led to many mistakes and eccentricities. Von Raumer, the historian of education and a student in the Institute at Yverdun, remarks: "The source of the internal contradiction which runs through the life of Pestalozzi was, as we have seen from his own confessions, the fact that in spite of his grand ideal which comprehended the whole human race, he did not possess the ability and the skill requisite for conducting the smallest village school." But no one has been more just than Pestalozzi himself in recognizing the limitations of his work, in realizing that the particular form which he gave to his ideas was but tentative, and that these great ideas even were possessed in rudimentary form only. In the preface to his work on method, written twenty years after the appearance of the first edition, he says: "If these letters [*How Gertrude Teaches*] may be considered in some respects as already answered and partly refuted by this time, and thus appear to belong to the past rather than to the present, yet if my idea of elementary education has any value in itself and is fitted to survive in the future, then these letters, so far as they throw light on the way in which the germ of the idea was developed in me, may have a living value for every man who considers the psychological development of educational methods worthy of his attention."

The point made emphatic by the reformer is often overlooked by his expositors and disciples. The significance of our study of Pestalozzi in connection with the general psychological tendency in education is not in the finality of his views, but in that which he states, — that here we may see

the development of the germs of modern educational ideas. Even in an examination of the practical work of Pestalozzi it is evident that the embodiment of his ideas was very imperfect and his success in their formulation only partial. Here again we may listen to his own appreciation of his work and that of his co-laborers. Surveying his work from near the close of his life, he remarks: "But the cry 'We can do it,' before we could; 'We are doing it,' before we did, was too loud, too distinct, too often repeated, partly by men whose testimony had a real value in itself and deserved attention. But it had too much charm for us; we made more of it than it really said or meant." And in another place: "The highest attainment (in popular education) can only be reached by means of a finished art of teaching and a most perfect psychology; thus securing the utmost perfection in the mechanism of the natural progression from confused impressions to intelligent ideas; this is in truth far beyond my powers."

In the face, then, of his lack of any philosophical and organizing ability, his lack of accuracy, of consistency, of persistency, and of practical success, it becomes necessary to restate the basis of his importance in educational history. What he did do was to emphasize the new purpose in education, but vaguely perceived, where held at all, by others; to make clear the new meaning of education which existed in rather a nebulous state in the public mind; to formulate an entirely new method, based on new principles, both of which were to receive a further development in subsequent times, and to pass under his name; and, finally, to give an entirely new spirit to the schoolroom.

The significance of much of Pestalozzi's work was that it was experimentation now substituted for tradition as a basis for educational work. Hence its value lies, not in any particular form of experiment, but in the final results attained; or, since we are even yet far from finality, in principle or practice still to be attained. In much, then, Pestalozzi was a learner

rather than a teacher. "My views of the subject," said he, "came out of a personal striving after methods, the execution of which forced me actively and experimentally to seek, to gain, and to work out what was not there, and what as yet I really knew not." Consequently, more than in the case of any other man in the history of education, it is necessary to study his life and experience in order to understand his ideas, for these are not always the same, but develop. They are the direct outgrowth of the experimental life which he led.

Life and Works. — Heinrich Pestalozzi (1746–1827) was raised in a fatherless family, where the sympathy, watchful care and loving insight of a mother furnished a training in place of that which might have come from the more masculine virtues of a father or from the world at large, and gave to him his purpose of introducing into the school the ideal of home relationships and to bring about the improvement, even the regeneration, of the masses of the people. As he said, "I will put skill into the hand of the mother, into the hand of the child, and into the hand of the innocent; and the scorner shall say no more [of the improvement of the masses] — 'It is a dream.'"

He was early influenced by the naturalistic movement, especially by the *Émile*, and became an ardent revolutionist, as all humanitarians then must have become. Abandoning in turn his preparation for the ministry, for the law and for public service, he entered finally upon an agricultural life, with the double purpose of improving a waste tract of land through new methods of cultivation and of living a life in accord with the prevalent naturalistic ideals. Practical success in these lines he failed to obtain; but the failure gave him an opportunity for trying an experiment even nearer his heart's desire, the founding of a philanthropic institute for destitute children. Meanwhile he had been experimenting in the attempt to bring up his one child according to the ideas of the *Émile*. Experience led him to see many of the

deficiencies as well as the excellencies of this negative treatise and put him on the road toward his life's great task, in the positive formulation of these ideas. His first educational work, entitled *A Journal of a Father*, — one of the earliest examples of child study, — was a further result of this experience.

The philanthropic venture mentioned above was an educational experiment as well, for it was but an application of the doctrine advocated by the naturalists, that the character of individuals is shaped by their environment. Reduce this to as nearly natural conditions as possible, they held, and character will be formed or developed. So Neuhof became a refuge for some score of beggar children, or children of poor parents who gave them no care. The development of the factory system of labor had already begun to accentuate the economic division of the people and to produce a poverty-stricken class, whose children were much more neglected than those of the peasantry and of whom no care was taken save by the poorhouses or charitable institutions that but increased the moral and industrial evils. From 1775–1780 Pestalozzi conducted what was probably the first "industrial school for the poor." The children were engaged in raising special farm products, in spinning and weaving of cotton and in other occupations. While so engaged they also spent some time in reading and committing passages to memory and especially in arithmetical exercises. There was no real connection between the occupations and the intellectual activities, but Pestalozzi demonstrated at least that the two could go on together. The combined functions of manager, farmer, manufacturer, merchant, schoolmaster, was beyond the ability of the reformer. This, together with the fact that the children were practically the refuse of society, and that their parents and people in general were without any appreciation of his enterprise, but were rather hostile to it, led to its abandonment.

During the next eighteen years Pestalozzi, as a participant in

the revolutionary movement, devoted himself chiefly to literary work. For nearly two years he served as editor of the *Swiss Popular Gazette*, published under the authority of the Directory of the revolutionary government, and intended as a means of extending the educational and political propaganda of the revolution. Throughout these years from 1780–1798 Pestalozzi produced many articles, some on social reform subjects, but most on education. The fundamental thought of all, whether on political or educational subjects, was the same; namely, that social and political reform was to be brought about by education — not the current education, but a new education that would produce a moral and intellectual reform of the people. This, now, is a truth complementary to the partial one upon which he based his work at Neuhof. The earliest one of these purely educational works was *The Evening Hour of a Hermit*, published in 1780. This consisted of one hundred and eighty propositions which contain the germs of all his later more concrete work combined with the naturalistic doctrines of Rousseau. Their character can be indicated by a selected few.

"All the pure and beneficent powers of humanity are neither the products of art nor the results of chance. They are really a natural possession of every man. Their development is a universal human need." "The path of nature, which develops the forces of humanity, must be easy and open to all; education, which brings true wisdom and peace of mind, must be simple and within everybody's reach." "Nature develops all the forces of humanity by exercising them; they increase with use." "The exercise of a man's faculties and talents, to be profitable, must follow the course laid down by nature for the education of humanity." "This is why the man, who, in simplicity and innocence, exercises his forces and faculties with order, calmness, and steady application, is naturally led to true human wisdom; whereas, he who subverts the order of nature, and thus breaks the due connection between the different branches of his knowledge, destroys in himself not only the true basis of knowledge,

but the very need of such a basis, and becomes incapable of appreciating the advantages of truth." "When men are anxious to go too fast, and are not satisfied with nature's development, they imperil their inward strength, and destroy the harmony and peace of their souls." "When men rush into the labyrinth of words, formulas, and opinions, without having gained a progressive knowledge of the realities of life, their minds must develop on this one basis, and can have no other source of strength."

The most popular of all his writings, the one that exerted the most influence, was his *Leonard and Gertrude*, the first volume of which was published in 1781. Written as a novel, it popularized the idea that he initiated in practical reform a generation later. This new education was to consist in a moral and intellectual *development* of the child and, in turn, was to produce a similar reform in society at large. The purpose of the book was to depict the simple village life of the people and the great changes caused therein by the insight and devotion of a single ignorant woman, Gertrude. By her industry and patience and skill in educating their children she saves her husband, Leonard, from idleness and drink. Neighbors, children, and neighboring families are finally brought within the influence of the new ideas; and by the simple methods of this peasant woman this new purpose in education effects the reform of the entire village. What was done in Bonal, Pestalozzi held could be done in every village. This was his mission in life: to work out in detail the methods of this education that was to effect the regeneration of society by securing for every child that moral and intellectual development which was his natural right and inheritance. Written as a "book for the people" it failed, as a matter of course, in reaching the ignorant masses; and the three succeeding volumes, designed to give the reading public, reached by the first, a more detailed knowledge of the new education, failed to interest it at all. In reading this simple

tale it is difficult for one now to understand its popularity and influence. But coming in a period of romanticism, it appealed to the popular fancy, and in a period of social agitation it appealed to the enthusiasm and hopes of the thinking classes. Were it not for the germs of the great movement contained therein, it would survive now only as a juvenile moral tale.

While there were many other educational treatises produced by him during this period, but one can be noted here. That is his *Researches into the Course of Nature in the Development of the Human Race*. Into this brief treatise Pestalozzi put three years' labor in the endeavor to give a philosophical formulation to his own ideas, which at that time were but a restatement of Rousseau's theses. As he possessed neither the philosophical insight to state the logic of his own ideas or practices, nor the literary skill to improve upon Rousseau, he was in this unsuccessful.

In 1798 there occurred a complete change in Pestalozzi's career. Hitherto he, like others, had been theorizing about the new education, concerning which he knew little concretely, and criticising the old — the evils of which were patent on every side. He announces, as if by inspiration, "I will turn schoolmaster"; for he at length realized that the way to establish education as the means to social reform was to demonstrate in a practical way its efficiency. No more remarkable testimony concerning the value and the validity of his fundamental educational ideas can be found than that this man who did not begin to teach until after fifty years of age and who, from the practical point of view, failed in every enterprise he undertook in his long life, should, after all, have had more influence than any other one person in the educational improvement of the nineteenth century. One chief reason for this was that his ideas were the results of experimentation. Consequently the truths reached were not completed and closed formulas, but rather suggestions for the guidance of the work of education, which, since

the concrete personal elements to be dealt with are never fully determinable in advance, must always partake somewhat of the nature of experimentation. Where, as it readily could, the Pestalozzian influence realized itself in the imposition of fixed formulas of procedure, there the least benefit resulted. Where spirit and purpose prevailed, it became the germ of the broader educational thought and more intelligent practice of the latter part of the nineteenth century. But even if credit be given to Pestalozzi only for this more restricted influence, it is something to have established scientific experimentation, rather than mere theorizing or mere empiricism, as the source of educational truths.

In the year mentioned, Pestalozzi's connection with the government publication having ceased, he accepted the charge of those children in one of the districts of Switzerland made orphans through the massacre of the people by the French soldiery. With these orphans at Stanz were first worked out the germs of the new educational practices. Here again, as in the case of his earlier experience, his fundamental purpose was to combine educational activities with handwork. But now he saw not only that the two could be carried on together, but that, if an approach differing from that of the ordinary schoolroom was made, much of the experience that was most valuable for mental development came directly from those activities in which the children were immediately interested. Pestalozzi's own statement of this work is full of the meaning of the new truth. "Here is the principle upon which I acted: Seek first to open the heart of the children, and, by satisfying their daily needs, mingle love and benevolence with all their impressions, experience, and activity, so as to develop these sentiments in their hearts; then to accustom them to knowledge in order that they may know how to employ their benevolence usefully and surely in the circle around them." In this, as in all of Pestalozzi's later work, we find the key to his educational influence, — the essential to reform is a new

method and new spirit in all educational works. The for tunes of war terminated this experiment in less than a year.

In the following year Pestalozzi, now a discredited visionary, was accepted as assistant teacher in the village school at Burgdorf. In the elementary school of this village, Pestalozzi taught for more than a year with slight satisfaction to the villagers, who saw little commendable in his rather erratic innovations. But for the cause of educational reform this brief experience was fraught with great importance, for here was first worked out the significance of the object lesson, not as a mere means of gaining knowledge of the word, or even of the thing, as with Comenius and earlier reformers, but as a means of mental development. Here Pestalozzi first announced his great aim, "I wish to psychologize education." The recognition that the public failed to give was furnished by some friends among the progressive officials of revolutionary and hence philanthropic bent, and by some schoolmasters, appreciative of the great significance of these new ideas, who now attached themselves as assistants. To these Pestalozzi owed the avoidance of complete failure and the educational world the carrying to a successful issue of this first stage in modern educational reform. A private school, partially endowed by the government, was established, where for some four years experimentation, both with the pupils and teachers along the line of the new thought, continued.

The great purpose now clearly held before him was to answer the fundamental educational question which was a challenge to the existing education respecting its purpose and its means. These inquiries were to determine what knowledge and what practical abilities were necessary for the child, and how they could be furnished to the child or obtained by him. This period produced Pestalozzi's most systematic work — *How Gertrude Teaches her Children* (1801) — which was an attempt to answer the above questions. At least it is the

most definite answer Pestalozzi himself gives to these questions. But its value lies more in its suggestiveness and in its indication of the fundamental problems with which the author was struggling than in the specific answers it furnishes to the questions raised. This work at Burgdorf, directed both toward the education of the children and the training of teachers, was watched with great interest by publicists and philanthropists, was assisted by the government, and was widely discussed through pamphlet and magazine controversy. But again withdrawal of the meager though necessary support, on account of political changes, together with disagreement among the directors of the institute themselves, led to its abandonment, and Pestalozzi withdrew to Yverdun for his last and longest experiment.

Among this French-speaking people, with whom he believed his reform would make more rapid headway, Pestalozzi labored for twenty years. Here, more than hitherto, the work was directed toward the training of teachers and direct experimentation in reforming educational practices. Text-books were compiled, numerous explanatory and controversial articles were published, students were trained for various European countries, and visitors were welcomed from almost every civilized people. The object of the work was a further definition of the problems raised at Burgdorf and the propagation of these school reforms. But the task of managing the institute, not to mention that of conducting a world reform, was too great for the old enthusiast, who was past sixty before the institute was founded and who never possessed the ability for practical management. The impracticability of the founder, together with the dissensions, both private and public, of his assistants, did much to discredit his work of reform, and render it profitless to study his life further in detail.

Influence of Pestalozzi on Education. (*a*) *As to Purpose.* — Throughout his long life Pestalozzi was moved by a convic-

tion that we have found to be common to most educational reformers since the early Renaissance; namely, that education is to become the chief means to social reform. This idea, however, possessed a peculiar significance during the latter half of the eighteenth century, since that was a period in which the greatest variety of remedies for social evils were advocated. New religions, no religions; new governments, no governments; new societies, no society — all were suggested. Socialism, anarchism, communism, pure individualism, atheism, deism, naturalism — all found their advocates. Every form of Utopia found its devotee, while the practical means chosen by all was revolution. Throughout all this period of turmoil, especially during the period of his literary activity, the voice of Pestalozzi in suggesting education — a new education — as the means for social regeneration became clearer and clearer.

Few among those that in previous periods had held education to be the means for social regeneration had considered that it was necessary for the masses. Such as had, were chiefly the Reformation leaders, who viewed the entire subject from the religious point of view. Even those, such as Comenius, who took a broader point of view and held that the education of the masses in every phase of knowledge was desirable from reasons other than the purely religious, were far from the thought of Pestalozzi. The latter had in view an entirely different conception of education — one that had little or nothing to do with the comprehensive encyclopedism of Comenius, but that related solely to the development of the child's nature, mental, moral, physical. In other words, what Rousseau had demanded in a theoretic way, for one individual, *Émile*, Pestalozzi demanded for every child, no matter how poor and humble his surroundings or how limited his capacities. Hence Pestalozzi's demand for universal education of the masses possesses an entirely new significance, — a significance only grasped when one conceives the difference between the old conception of educa-

tion and that which he held. The peculiar turn which Pestalozzi gave to Rousseau's doctrine concerning the detrimental influence of the arts and sciences was that through their identification with education, popular education comes to be a mere form without any resulting benefits for the masses, while the learned classes grow into greater knowledge, power, and indifference to the needs of the masses. In his *How Gertrude Teaches* he says: —

"Europe, with its system of popular teaching, has fallen into error, or rather it has lost its way. On one side it has risen to an immense height in the sciences and arts; on the other it has lost the whole foundation of natural culture for the bulk of the people. No part of the world has risen so high; no part has sunk so low. Our continent resembles the great image mentioned by the prophet; its golden head touches the clouds, but popular instruction, which should bear this head, is like the feet of clay. In Europe the culture of the people has become vain babbling, as fatal to faith as to true knowledge; an instruction of mere words which contains a little dreaming and show which cannot give us the calm wisdom of faith and love, but, on the contrary, lead to unbelief and superstition, to selfishness and hardness. It is indisputable that the mania for words and books, which has absorbed everything in our popular instruction, has been carried so far that we cannot possibly remain long as we are. Everything convinces me that the only means of preserving us from remaining at a civil, moral, and religious dead level is to abandon the superficiality, the piecemeal, and infatuation of our popular instruction, and to recognize intuition as the true fountain of knowledge."

(*b*) *The New Meaning of Education.* — In defining the new conception Pestalozzi started, as did Rousseau, with the contrast between the accepted educational usages and the natural development of the child. Speaking of children in their early years he says: —

"Their power and their experience both are great at this age; but our unpsychological schools are essentially only arti-

ficial stifling machines for destroying all the results of the power and experience that nature herself brings to life in them. You know it, my friend. But for a moment picture to yourself the horror of this murder. We leave children up to their fifth year in the full enjoyment of nature; we let every impression of nature work upon them; they feel their power; they already know full well the joy of unrestrained liberty and all its charms. The free natural bent which the sensuous happy wild thing takes in his development has in them already taken its most decided direction. And after they have enjoyed this happiness of sensuous life for five whole years, we make all nature round them vanish before their eyes; tyrannically stop the delightful course of their unrestrained freedom; pen them up like sheep, whole flocks huddled together in stinking rooms; pitilessly chain them for hours, days, weeks, months, years, to the contemplation of unnatural and unattractive letters, and, contrasted with their former condition, to a maddening course of life."

The connection between nature, education, and instruction is yet more clearly indicated in the following: —

"Whatever, therefore, man may attempt to do by his tuition, he can do no more than assist in the effort which the child makes for his own development. To do this so that the impressions made upon him may always be commensurate to the growth and character of the faculties already unfolded, and, at the same time, in harmony with them, is the great secret of education. The knowledge to which the child is to be led by instruction must, therefore, necessarily be subjected to a certain order of succession, the beginning of which must be adapted to the first unfolding of his powers, and the progress kept exactly parallel to that of his development."

Or again: —

"Sound education stands before me symbolized by a tree planted near fertilizing waters. A little seed, which contains the design of the tree, its form and its properties, is placed in the soil. The whole tree is an uninterrupted chain of organic parts, the plan of which existed in its seed and root. Man is similar to the tree. In the new-born child are hidden those

faculties which are to unfold during life. The individual and separate organs of his being form themselves gradually into unison, and build up humanity in the image of God. The education of man is a purely moral result. It is not the educator who puts new powers and faculties into man, and imparts to him breath and life. He only takes care that no untoward influence shall disturb nature's march of development. The moral, intellectual, and practical powers of man must be nurtured within himself and not from artificial substitutes. Thus, faith must be cultivated by our own act of believing, not by reasoning about faith; love, by our own act of loving, not by fine words about love; thought, by our own act of thinking, not by merely appropriating the thoughts of other men; and knowledge, by our own investigation, not by endless talk about the results of art and science."

These somewhat extended quotations give Pestalozzi's conception of education more clearly than would a similar amount of exposition. Education is but the organic development of the individual, — mental, moral, physical. This development comes in each of these phases by doing, through activities initiated by spontaneous desire for action, which leads to growth, and along lines predetermined by the nature of the organism,— the child. It does not come by forms of procedure established by custom. To quote the definition in its more traditional form, education is the natural, progressive, harmonious development of all the powers and faculties of the human being.

Starting from the new purpose that Pestalozzi gave to education, the elevation of the common people from their ignorance, squalor, and misery, he was compelled to give to it a new meaning. His early experiences taught him that their material degradation could not be removed save by the removal of the intellectual and moral poverty and depravity. The removal of this, or rather the growth of the individuals composing the submerged portion of humanity into the moral and intellectual maturity for which they as well as the chosen few were destined, constituted education. He found in each

individual the germs of all the powers, sentiments, faculties, aptitudes that were needed for their successful, satisfactory, and useful participation in their walks of life and in the satisfaction of the needs of society. Directed, as it was, toward giving the child possession of forms or of merely acquainting him with them, — forms of religious thought through the catechism, forms of thought through the mere ability to read words, forms of practical or scientific procedure through the mere memoriter knowledge of mathematics, or the forms of culture through the dead languages, — the existing education did not accomplish this adjustment. Real education was to do none of this, but something infinitely greater: to develop in the child the elements of power implanted there by nature, by furnishing to him in appropriately selected and graded series the materials of experience needed as a basis for the natural exercise of these capacities. The novelty of all this was not in the new conception of the nature and powers of man, their development and manner of action, but in the application of this to education, — or more distinctively, — to the schoolroom. The school-teacher has to deal with these powers of action directly and his function is to furnish appropriate means and material for activity. Pestalozzi's insistence that there was a natural order in the development of the child's mind and that all educational activity should be based upon or guided by the knowledge of that growth, is not a pretension to the accurate knowledge of those laws of the mind's activity and development. That degree of finality was only claimed for him by his disciples of a later generation. But his is the honor of having first insisted upon the necessity of this knowledge as a basis for instruction, a view which later generations have accepted in their continued endeavor to increase this knowledge which the great reformer sought. This general idea of growth and of organic development through activity had been formulated by Lamarck into a general philosophy or scientific hypothesis, and had received

many special applications. It was Pestalozzi's work to apply it to the schoolroom, and to attempt to organize activities appropriate both to intellectual and to moral development. It is in this work, then, a work specifically related to method, that Pestalozzi exerted his greatest influence, and it is in this connection that he merits the greatest praise.

(*c*) *Influence on Educational Means and Method.* — The significance of the Pestalozzian reform in method can be appreciated only when the character of the contemporary schoolroom is kept in mind. In the village school in Burgdorf, where Pestalozzi was barely tolerated, even for a few months, as assistant, the master was the ignorant village shoemaker, who "kept" school in his shop and cobbled meanwhile. Kruesi, Pestalozzi's ablest assistant, gives this account of his first appointment as teacher, an office for which he had no preparation, though, as later experience showed, one for which he possessed great natural aptitude: —

"The day of examination arrived. One candidate, older than myself, exhibited his learning. He was ordered to read the first chapter of the New Testament and write some lines, — a task which took him half an hour to perform. I was called in. The examiner placed before me a genealogical table from Adam to Abraham, as a reading exercise. He then handed me an unmended quill pen, desiring me to write something. 'But what shall I write?' said I. 'Write the Lord's Prayer, or whatever you like,' was the reply. As I had no knowledge, either of parts of speech or orthography, or of punctuation [he explained elsewhere that he scattered capital letters at equal distances thinking they were for ornament], the result of my scribbling may be imagined. This was all the examination, and after it we retired. When we were recalled, the chairman informed us that neither had been found overburdened with learning; that one of us was better in reading, the other in writing; but, that since my rival was already forty years old, while I was only eighteen, they thought I would sooner acquire the necessary knowledge. Moreover, since my dwelling [the town had no schoolhouse]

was better adapted for a school than that of my competitor, they had appointed me schoolmaster. No doubt I felt happy at this unexpected decision, though I had no reason to be very proud of my salary, which was only one dollar per week, while my vanquished opponent was appointed policeman, with one and a half dollars per week."

So, we find the village watchman, the bricklayer, the rope maker, the crippled soldier, the widow, or any one whose occupation did not consume all his time or furnish him with complete living, was chosen as schoolmaster. More frequently the convenient house which they occupied was of greater importance than their qualification as teachers. When one turns to the character of the work of the school, the reasons for this can be readily understood. The work of the two schools mentioned above, and, with possible slight alterations, that of all the regions around, consisted of a primer (spelling and name book), a reader (the beginnings of Christian doctrine), the Heidelberg catechism and the Psalter. Besides learning to read, that is, the mere ability to recognize forms of words, the work of the school was pure memorizing of theological or religious texts. This constituted both moral and religious education. The method in which this work was done is thus described by Diesterweg: —

"Each child read by himself; the simultaneous method was not known. One after another stepped up to the table where the master sat. He pointed out one letter at a time, and named it; the child named it after him; he drilled him in recognizing and remembering each. They then took letter by letter of the words, and by getting acquainted with them in this way, the child gradually learned to read. This was a difficult method for him, a very difficult one. Years usually passed before any facility had been acquired; many did not learn in four years. It was imitative and purely mechanical labor on both sides. To understand what was read was seldom thought of The syllables were pronounced with equal force, and the reading was without grace or expression. Where it was possible, but unnaturally and mechanically, learning

by heart was practiced. The children drawled out texts of Scripture, Psalms, and the contents of the catechism from the beginning to end; short questions and long answers alike, all in the same monotonous manner. Anybody with delicate ears who heard the sound once would remember it all his life long. There are people yet living, who were taught in that unintelligent way, who can corroborate these statements. Of the actual contents of the words whose sounds they had thus barely committed to memory little by little, the children knew absolutely almost nothing. They learned superficially and understood superficially. Nothing really passed into their minds; at least nothing during their school years. The instruction in singing was no better. The master sang to them the psalm tunes over and over, until they could sing them, or rather screech them, after him. Such was the condition of instruction in our schools during the sixteenth, seventeenth, and two thirds of the eighteenth centuries; confined to one or two studies, and those taught in the most imperfect and mechanical way."

This, in Pestalozzi's view, was not education in the true sense of the word. "A man who has only word wisdom is less susceptible to truth than a savage. This use of mere words produces men who believe they have reached the goal, because their whole life has been spent in talking about it, but who never ran toward it, because no motive impelled them to make the effort; hence I come to the conviction that the fundamental error — the blind use of words in matters of instruction — must be extirpated before it is possible to resuscitate life with truth."

This condemnation of the existing school work forms the most often repeated idea in Pestalozzi's writings, and if he had accomplished nothing but the negative destructive work, he would hold an important place in the history of schools. While this was the character of the schools of Switzerland and of Germany, those of other countries were no better, if as good. That such was the condition of the average district school in the United States well into the nineteenth century and of the

average elementary school in England much later is well known.

The character of the school which Pestalozzi would substitute for this has been indicated. The school was to be a transformed home, approximating the same relationships, duplicating the same spirit, seeking the same ends; that is, the moral and intellectual development and the material betterment of the child. It is the peculiar excellence of Pestalozzi that he was the first to make great progress in indicating the practical way in which these new educational ideas could be realized. But in seeking the essentials of this new method, we must clearly distinguish between the principles fundamental to the new practices and the particular form, often crude and experimental, sometimes erroneous or absurd, which was given to these principles in the early gropings of Pestalozzi and his assistants.

The essential thought of the Pestalozzian method is comparatively simple. It is based on the fundamental conception of what education is; namely, the continuous development of the mind through appropriate exercise so selected that there will result a harmonious and progressive functioning of the mind in all its capacities of action or expression. The result at any stage should be a symmetrical and complete organic life. The fundamental endeavor was to analyze knowledge in any particular line into its simplest elements, as these present themselves naturally to the attention of the child. These were to be acquired not simply in their form, but in their real inner meaning by the process of observation, or sense impression (intuition, it was often called), and developed by a progressive series of exercises graded by almost imperceptible degrees into a continuous chain. Such exercises were to be based primarily upon the study of objects rather than upon the study of words. The object lesson, then, was the core of the method; but the object lesson not as often employed for the mere purpose of obtaining a knowledge of the object, or

even of developing powers of observation. Its real use was as a basis for the entire mental development of the child. This training in observation was the beginning only.

"Meanwhile," he says, "the consciousness began daily to develop in me that it must be absolutely impossible to remedy school evils as a whole if one cannot succeed in reducing the mechanical formulas of instruction to those eternal laws, according to which the human mind rises from mere sense impressions to clear ideas. The child learns — that is, develops mentally — through his own activities, and only through impressions, experiences, not through words; though, to be sure, these experiences must be clearly expressed in words, or otherwise there arises the same danger that characterizes the dominant word teaching, — that of attributing entirely erroneous ideas to words."

In their purpose and spirit at least, these are the essentials that have entered into all subsequent educational reform. The particular form is incidental and has been vastly improved since these earlier efforts.

It is impossible in a brief space to indicate the details of special methods; the greater portion of Pestalozzian literature is given up to this. A few indications of immediate general changes must suffice for fuller presentation. The great emphasis upon arithmetic in elementary education is partly due to his insistence upon the importance of number. Especially "mental" arithmetic, which indicated an "intuitive" knowledge of numerical relationships instead of a mere knowledge of rules, acquired an important place in the school. All arithmetical relations were reduced to the fundamental processes of the combination and separation of units, addition and subtraction. The object was to give the child a thorough understanding of the properties and proportions of numbers, and not merely formal methods of "ciphering." Instruction in numbers was connected with objects and with the play or other activities of the child. Greater success was

reached and greater improvement in the method of the schools was made in the instruction in this subject than in any other.

Great attention was paid to drawing, of which subject writing formed a part. In both writing and drawing the child, starting with a mastery of simple elements, straight lines, angles, curves, by slow processes of combinations through thorough exercises, was led to a real mastery of these arts through the synthetic process, and not by mere imitation. In fact, all mere memory and purely imitative processes were theoretically at least to be eliminated from the school in favor of this training in "intuitive" or vitalized observation.

In the language studies similar advances were made, though with the usual accompanying errors. The old method of letter spelling and reading was replaced by the phonetic and syllabic method. Great effort was put forth to reduce this to its simplest form, with much greater success, from the nature of the languages, in German than in French and in English. Nevertheless, the endless and meaningless repetition of elemental syllables, "ab, ib, ob, ub," etc., that formerly constituted so large a part of spelling and reading books, was sanctioned by Pestalozzi's methods. A notable feature was the use of objects as the basis of language lessons in all their phases in substitution for the purely meaningless drill in words which were beyond the understanding or interest of the child.

The methods of geography were similarly transformed, at least in theory; though here, as in other subjects, many schools yet await the arrival of the century-old reform. The school yard or the village was to furnish the simple elements of this subject and these were to be combined and expanded, step by step, until the structure of the whole earth and its relation to man were developed from the simple elements. Geography was made the basis of, or at least closely connected with, instruction in nature studies (natural history) and agriculture.

In fact the nature-study movement, being closely related to object study, was an outgrowth of these new methods, though as in most other subjects great advance has been made since then in special methods and in the very conception of this study. Singing and gymnastics formed important parts of the newly organized schoolroom activities; the latter was a complete innovation, the former was of an entirely different character from that previously dominated by religious spirit. But it was not for proficiency in music that this great emphasis was made, but for its influence on the feelings and on moral training. In general, the arrangement of all modern textbooks is a direct though not necessarily an immediate outgrowth of Pestalozzi's efforts at analyzing the subject into its simplest elements and proceeding then by a gradual increase in the complexity of the material to build up a connected and symmetrical understanding of the subject. The old method of beginning with a mastery of rules and principles as in arithmetic, of the rules of abstract form in language, or of most general relations, as in geography, history, and the natural sciences, has been gradually superseded.

Morf, one of Pestalozzi's ablest disciples, summarizes the general principles of these methods as follows: —

(1) Observation, or sense-perception (intuition), is the basis of instruction. (2) Language should always be linked with observation (intuition), *i.e.* with an object or content. (3) The time for learning is not the time for judgment and criticism. (4) In any branch teaching should begin with the simplest elements and proceed gradually according to the development of the child, that is, in psychologically connected order. (5) Sufficient time should be devoted to each point of the teaching in order to secure the complete mastery of it by the pupil. (6) Teaching should aim at development, and not at dogmatic exposition. (7) The teacher should respect the individuality of the pupil. (8) The chief end of elementary teaching is not to impart knowledge and talent to the learner, but to develop and increase the powers of his intelligence.

(9) Power must be linked to knowledge, and skill to learning. (10) The relation between the teacher and the pupil, especially as to discipline, should be based upon and ruled by love. (11) Instruction should be subordinate to the higher aim of education.

(*d*) *Influence on the General Spirit of the Schoolroom.* — There remains one further point to be noted, — that contained in the tenth principle stated above. In regard to method, as Pestalozzi himself stated in an exaggerated way, "half the world" was working on the same problem. The new purpose in education was held by many others — public men, religious leaders, philosophers, and educators. In defining the new meaning of education, he was but making more explicit the ideas of Rousseau, Basedow, and others. His peculiar excellence was in making evident, through all his writings and all his work, that a new spirit must pervade the schoolroom, that both teacher and pupil must breathe a new atmosphere,



A Typical German Schoolroom of the Eighteenth Century.

— the atmosphere of the home. What cannot be taken away from him is the credit for demonstration from the very nature of the educational process that when the end is development and not mere acquisition of formal principles, the only basis for the relation of teacher and pupil is sympathy. The contrast is clearly indicated by a comparison of accompanying illustrations; one of the typical German schools



PESTALOZZI IN HIS SCHOOLROOM AT STANZ.

before Pestalozzi's time, the other of Pestalozzi's school at Stanz. In other lines, more recent times have developed the germs of the ideas suggested by the unlettered reformer; but in this one respect, every modern schoolroom is so directly indebted to him that he may yet be called, as he was by his own teachers and followers, "Father Pestalozzi."

THE HERBARTIAN MOVEMENT. Its Relation to Pestalozzianism. — Herbart built upon and supplemented the work of Pestalozzi. But he soon reached an elaboration of educa-

tional thought far beyond that of Pestalozzi. The latter insisted always in his theoretical statements that instruction was to lead from sense-perception to "clear ideas." But his practical work went little beyond the formulation of the training in sense-perception through exercises in observation. Except as he accomplished it with a few children through the genius of his own personality, he did not show either theoretically or practically how mental assimilation and growth take place from this starting point, or how moral character was to be made the outcome. Herbart carried this further and showed how the product of sense-perception could be converted into ideas, through the apperceptive process, and how knowledge in turn could thus be made to bear upon moral character through the processes of instruction. As Pestalozzi would substitute his method for the formal verbal methods in memory training of the existing schools, making this latter method wholly subordinate to methods of training in sense-perception, so Herbart would use Pestalozzi's method merely as an initial one. In a discussion of the Pestalozzian method, Herbart says: —

"The whole field of actual and possible sense-perception is open to the Pestalozzian method; its movements in it will grow constantly freer and larger. Its peculiar merit consists in having laid hold more boldly and more zealously than any former method of the duty of building up the child's mind, of constructing in it a definite experience in the light of clear sense-perception; not acting as if the child had already an experience, but taking care that he gets one; by not chatting with him as though in him, as in an adult, there already were a need for communicating and elaborating his acquisitions, but, in the very first place, giving him that which later on can be, and is to be, discussed. The Pestalozzian method, therefore, is by no means qualified to crowd out any other method, but to prepare the way for it. It takes care of the earliest age that is at all capable of receiving instruction. It treats it with the seriousness and simplicity which are appropriate when the very first raw materials are to be procured. But we

can be no more content with it than we can regard the human mind as a dead tablet on which the letters remain as originally written down."

Consequently, in one other main point, Herbart differs radically from Pestalozzi, again by way of addition. As Pestalozzi made the presentation of the physical world through sense-perception the chief aim of instruction, if not of education, Herbart made the moral (æsthetic) presentation of the universe the chief end of education. Sense-perception is no longer sufficient. "Experience, human-converse, and instruction taken all together constitute the presentation of the universe." As a result, the emphasis which Pestalozzianism tended to place on arithmetic, geography, and the nature studies is replaced in Herbartianism by an emphasis on pure mathematics on the one hand and more especially on the other by that on the classical languages, literature, and history.

At one other point Herbart's work takes its initiative from Pestalozzi's. The latter reiterated his purpose of "psychologizing education"; but while rejecting the old psychology he did not and could not construct any system of his own. Herbart did quite as notable work in this line as in constructive educational thought. However, his psychological ideas much sooner served their purpose than have the educational, and gave way to more accurate knowledge.

In general, Herbart's work was the antithesis of Pestalozzi's, in that it was logical and philosophical in character, while Pestalozzi's possessed no logical form or system and little definitely formulated philosophical basis. The one possessed the comprehensive view and calm logic of the philosopher; the other the intense emotionalism and strong purpose of the reformer working toward immediate betterment, though with no adequate view of the ultimate end.

Life and Works of John Frederick Herbart (1776–1841). — There is little in the life activities of the man that throws

light upon his educational doctrines, and hence little that can concern us here. Passing through the traditional educational course of the gymnasium and university, he gave evidence of ability and originality at every point. At the age of twenty-one he left the university for a three years' experience as private tutor, from which he formulated much of his educational doctrine. He later enunciated the belief that any real knowledge of the psychology of education can be gained, not from the study of children in masses and from brief acquaintance, but only from a prolonged intimate study of the mental development of a very few individuals. He returned later to study and then to give instruction in philosophy and in education in the University of Göttingen. Here and at the University of Königsberg he spent the remainder of his life. At the latter place he established his pedagogical seminar with a practice school attached, the forerunner of the university type of instruction and experimentation in the subject of education. While as a member of school commissions he took some part in educational reform, his life for the most part was spent in investigation, lecturing, and publication.

Referring to his approach to educational problems, he says in one of his essays, — *Observations on a Pedagogical Essay:*

"I have for twenty years employed metaphysics and mathematics, and side by side with them self-observation, experience, and experiments, merely to find the foundations of true psychological insight. And the motive for these not exactly toilless investigations has been and is, in the main, my conviction that a large part of the enormous gaps in our pedagogical knowledge results from lack of psychology, and that we must first have this science — nay, that we must first of all remove the mirage which to-day goes by the name of psychology — before we shall be able to determine with some certainty concerning even a single instruction period what in it was done aright and what amiss."

Herbart's Psychology. — This, then, is Herbart's great contribution to education. The movement which Locke began

in making the child the center of educational endeavor and pedagogical theory; which Rousseau established in general form through his brilliant critical and destructive work in the form of investigative literature; which Pestalozzi brought down to the schoolroom and made concrete in the hands of every teacher; that movement Herbart made permanent by giving it an actual scientific basis in place of the imaginative one of Rousseau and the empirical one of Pestalozzi. We are here concerned only with the main educational applications, not with an exposition of Herbart's psychology, which at most points has received development and modification with the investigation of the intervening century, and at many important points has been entirely superseded.

The fundamental point is that he established educational work upon the basis of a unified mental life and development. As previously noted, the psychology prevailing even in the nineteenth century — popular even to-day — was the Aristotelian "faculty" psychology, but slightly modified even by modern thought. The soul was endowed with higher and lower capacities, entirely distinct, each class of mental phenomena being considered as the product of the appropriate faculty. The more important were those of knowledge, feeling, and will, which were in turn divided into an elaborate system of capacities or sub-faculties. With this diversity of mental life as a basis, the work of the school possessed a similar diversity of aims, for each separate faculty demanded its appropriate and distinct training through some form of discipline (see Chapter IX). In place of this Herbart substituted the conception that the soul is a unity, not endowed with intuitive or inborn faculties, but a blank at birth, possessing but one power, — that of entering into relation with its environment through the nervous system. Through these relations the mind is furnished with its primary "presentations" of sense-perception; and from these the whole mental life is developed. The interaction of these presentations lead through generali-

zation to concepts, and by similar processes of interaction to acts of judgment and reasoning. What the teacher has to work with is a mass of presentations, coming from two main sources, — experience, contact with nature; and intercourse, contact with society. Through the expansion of the one original power the teacher has to develop *knowledge* from experiences and *sympathy* from intercourse, by processes which are to be noted in the following sections.

The mind or soul is built up, acquires a content, not through the development of inherent faculties, but through presentations, — through ideas resulting from its own experiences. It is inherently neither good nor bad, but develops one way or the other according to external influences, that is according to what it receives in the way of presentations and the manner of their combinations. Two corollaries of tremendous importance to education follow: (1) The chief characteristic of the mind is its power of assimilation; (2) education, which determines what presentations the mind receives, and also the manner in which they are combined into higher mental processes, is the chief determining force in shaping the mind and character.

Herbart's educational doctrines are thus founded upon this assimilative function of the mind, — apperception. So far as the immediate importance of this doctrine to the teacher is concerned it is immaterial, as has often been pointed out, whether one agrees with Herbart in rejecting all inherent constitutive powers of the mind or not, for such original powers are beyond control, and the best that the teacher can do under any circumstances is to direct the development of the mind through control of this assimilative process. From this point of view De Garmo thus states the work of the teacher:—

"His primary function is to impart knowledge in such a way that it can be most rapidly, securely, and profitably assimilated, and this is the problem of concrete apperception.

Whether the mind be a germ or a series of germs to be developed, or whether it is a structure to be erected, the process is still the same from the teacher's standpoint. He must know something of the child's previous knowledge and interests in order to utilize them; he must select his materials of instruction with respect to ultimate purposes and the pupil's comprehending powers; he must arrange the subject-matter, not only with respect to the pupil's acquired experience, but also with respect to that which he is going to acquire, *i.e.* the studies must be brought into the best coördinate relation to one another, and he must adapt his teaching processes so as to secure the quickest apprehension and the longest retention of the matter taught. All this has to do with the acquisition of new experience upon the basis of that already acquired."

Apperception, then, — the assimilation of ideas by means of ideas already acquired — is the basal psychological principle of Herbart when applied to education; the theoretical exposition of this idea is his chief work; its practical elaboration, that of his followers.

Conception and Purpose of Education. — Herbart derived his conception of education from philosophy as he derived its aim from ethics. On the one hand he opposed determinism or fatalism, which rendered education impossible or at least mechanical, since character according to this view is shaped by forces entirely beyond control. On the other hand he opposed the doctrine of the transcendental freedom of the will, which made moral education useless, since according to this view the will chooses entirely independent of such would-be determining influences. The will, then, is not any independent faculty of the mind that can originate actions that are independent of ideas or thought processes, but it is a functioning of the mind, growing out of and wholly dependent upon the ideas or presentations possessed by the mind. This conception of the will is fundamental and must be kept in mind throughout any consideration of Herbart's doctrines. The will is the product of action or experience, not, as usually

held, the determining cause of action. The apperceptive process is fundamental, because ideas lead to action, action determines character. The aim of education, according to Herbart, is ethical. "The one and the whole work of education may be summed up in the concept, — morality," is the opening sentence of the *Æsthetic Presentation*. Again, "The term 'virtue' expresses the whole purpose of education," is a statement in his *Educational Doctrines*. To him virtue was "the idea of inner freedom which has developed into an abiding actuality in an individual." That is, it is an evolutionary product in each individual, resulting from a cumulative series of experiences, because each relationship calls forth an independent judgment of approval or disapproval. Since these judgments are without proof, but spring immediately from a contemplation of the relationship and are thus like those of taste, Herbart called them æsthetic judgments. His first philosophical treatise on education is entitled *The Æsthetic Presentation of the Universe as the Chief Aim of Education*. Herbart, carrying Pestalozzi's analysis of the alphabet of perception — number, form, language — much further, found the necessity for various other elements, notably those of taste and obligation. Rather, he combined the two under the norm of what is *not necessarily so*, but what *ought to be*. These are called *æsthetic presentations*. Such presentations include "the fitting, the beautiful, the moral, the just; in one word, that which in its perfect state *pleases* after perfect contemplation." To develop this attitude of preference for that which constitutes "inner freedom" into an "abiding actuality in the individual" is the chief aim of education. The process of doing this constitutes the "æsthetic presentation of the universe," through "experience, human converse, and instruction."

Herbart's analysis of virtue, or of moral character, went further; it was not left in formal terms, but was reduced to five moral relationships or ideas. The fundamental one was

that of inner freedom — the harmony between the volition or desire on the one hand and insight and conviction on the other. To this were added efficiency, or perfection (the balance or harmony of the Greeks); benevolence, or good will; justice; and equity, or retribution. These individual elements have their social counterparts: that of inner freedom in the idea of an ideal society, that of efficiency in the system of culture, the idea of benevolence in the system of government, that of justice in the system of law, that of equity in the system of rewards and wages. As elsewhere, so here, Herbart establishes a unity between the ideals of individual character and the ethics of social life. These relationships furnish the content of morality. The work of education then is to form character "which in the battle of life shall stand unmoved, not through the strength of its external action, but on the firm and enduring foundations of its moral insight and enlightened will."

The nature of the aim of education having been determined, there arises a second point in Herbart's theory concerning the nature of education. The concrete work of education is (1) to furnish the mind with presentations or experiences, and (2) upon the basis of these presentations to "complete the circle of thought" through ideas and motivation to action. As previously noted, presentations furnish the elements out of which the mind is composed; thus far Pestalozzi went. But it is the second point taken in connection with the first that is significant in Herbart's doctrine. Morality depends upon good will and knowledge; these in turn upon the general enlightenment of the whole man, in other words upon the ideas developed from the interaction of primary presentations. There is no independent function of willing in the individual. Action is the result of motivation, or desire springing from these presentations, influenced by good will springing from the same source. Hence the importance of the instruction given by

the teacher. This is the summary given by Herbart in the *Æsthetic Presentation:* —

"'*A making*' *which the pupil himself discovers when choosing the good and rejecting the bad* — this or nothing is the formation of character. This rise to self-conscious personality ought without doubt to take place in the mind of the pupil himself, and be completed through his own activity; it would be nonsense if the teacher desired to create the real essence of the power to do it, and to pour it into the soul of his pupil. But to place the power already existent and in its nature trustworthy under such conditions that it must infallibly and surely accomplish this rise — this it is which the teacher must look upon as possible, which to attain, to affect, to investigate, to forward, and to guide, he must regard as the great object of all his efforts."

The third point in Herbart's theory follows; namely, this formation of character, which is dependent upon the shaping of the will, is determined by *educative instruction.* This follows from two subordinate principles: (1) That these presentations which constitute the content of the mind are modifiable (through the apperceptive process), and (2) that these presentations determine conduct. Conduct and character, then, depend primarily upon the sort of presentations acquired by the mind, and upon the manner in which they are acquired or given; for the worth of moral as well as mental instruction depends upon following the proper psychological procedure in the building up of the more complex presentations. In other words, it is the business of the teacher to determine the character and the relation — at least the order of sequence — of the presentations that constitute the content of the child's mind; by so doing he shapes the child's conduct, and thus his character. If these primary presentations have been fully acquired; if the proper and harmonious relations are established between them; if from the presentations derived from social intercourse the appropriate sympathy or good will has also been developed, then the good

moral character, perforce, is the outcome. In the process of rejecting that which is erroneous and evil the pupil finds or develops his true self; it is "a making which the pupil himself discovers when choosing the good and rejecting the bad." The extent to which the teacher is competent to produce such results is thus stated: "The capacity for education, therefore, is determined not by the relationship in which various originally distinct mental faculties stand to one another, but by the relations of ideas already acquired to one another and to the physical organism." As previously seen, the character of these presentations or the relations of these ideas is modifiable by education — not, however, the ordinary instruction of the schools, against which Herbart strove as did Pestalozzi, though he has much less to say about it. Nor is instruction in the Pestalozzian sense sufficient.

"Instruction in the sense of mere information contains no guarantee whatever that it will materially counteract faults and influence existing groups of ideas that are independent of the imparted information. But it is these ideas that education must reach; for the kind and extent of assistance that instruction may render to conduct depend upon the hold it has upon them."

Such instruction, then, which modifies the groups of ideas already possessed by the mind causing them to form a new unity or harmonious series of unities, and which thus determines conduct, is alone educative. A volition is but an idea that has passed through complete development, in which the circle of thought, beginning with interest and ending with action, has been completed. This *educative instruction* that reaches and forms the will or determines volitions, and thus shapes character, is the proper work of the school. The immediate means to this educative instruction is by arousing in the child's mind a "many-sided interest."

Herbartian Means and Method. *How Instruction can be made Educative.* — The presentation of the doctrine of interest,

which here must be given in a few words, constitutes the bulk of Herbartian literature, both of Herbart's systematic works, including the *Science of Education* and the *Outlines of Educational Doctrine*, and of those of his expositors and followers.

"The ultimate purpose of instruction is contained in the notion, virtue. But in order to realize the final aim another and nearer one must be set up. We may term it *many-sidedness of interest*. The word *interest* stands in general for that kind of mental activity which it is the business of instruction to incite. Mere information does not suffice; for this we think of as supply or store of facts, which a person might possess or lack and still remain the same being. But he who lays hold of this information and reaches out for more takes an interest in it. Since, however, this mental activity is varied, we need to add the further determination supplied by the term *many-sided*."

This is the approach to the subject in Herbart's latest systematic work, in which we find interest defined as a mental activity or condition accompanying the process of apperceiving an idea.

The relation of this many-sidedness to the individuality of the pupil and the work of the teacher is more clearly indicated in his earlier systematic work. Here the approach is as follows: —

"Every man must have a love for all activity, each must be a virtuoso in one. But the particular virtuoship is a matter of choice; on the contrary, the manifold receptivity, which can only grow out of manifold beginnings of one's own individual efforts, is a matter of education. Therefore we call the first part of the educational aim *many-sidedness of interest*, which must be distinguished from its exaggeration, — dabbling in many things. And since no one object of will, or its individual direction, interests us more than any other, we add to this, lest weakness may offend us by appearing on the side of strength, the predicate, — proportionate many-sidedness."

Since volitions are the results of ideas, it becomes of ut most importance that the pupils should conceive a genuine interest in the subjects of study, for only thus do these ideas enter into organic relationship with the presentations already in the mind; and to affect character permanently, these interests must be made abiding. The arousing of interest is not merely a means for securing attention in the lesson, it is the means for securing the complete appropriation of new ideas or presentations through their apperception, so that they enter into the constitution of new unities in the child's mind and thus form a new and more elaborate and secure basis for conduct. Such interest in the activity remains after the learning or apperceiving process is complete; by making it many-sided and proportionate, a harmonious and broad character is produced. It is the work of the teacher to blend the individuality of the pupil into many-sidedness, by the development of these many interests and activities through instruction, so that character is the result. Individuality is unconscious, character is conscious. "There are many individualities; the idea of many-sidedness is but one." But the latter is the whole of which the individualities are but parts to be measured by the whole. The work of the teacher, starting with the individuality of the pupil, is to increase the quantity of interests without changing the outlines, the proportion, or the form of this many-sidedness. "Only this work undertaken with the individual does always change his outlines, as if from a certain point in an irregular angular body a sphere gradually grew, which was nevertheless incapable of ever covering over the extreme projections. The projections, the strength of individuality, may remain so far as they do not spoil the character; through them the entire outline may take this or that form." The work of the teacher then, is to blend individuality with many-sidedness and the more thoroughly this is done, "the more easily will character assert its sway over the individual."

In order to accomplish this, the teacher must have a care for two things: first, for the selection of the proper materials, as the subject-matter of instruction, — materials that will furnish the proper presentations both of experience and intercourse; and second, for the proper method of instruction so that the presentations are arranged in an order harmonious with the psychological development of the child, and so that this many-sidedness of interest is an inevitable result.

Correlation of Studies. — The first of these essentials gives rise to the idea of the correlation or unification of studies. Herbart himself believed that the Homeric poems furnished the best materials for the education of boys. For here, he held, in the youth of the race were to be found the same activities and interests that were natural to the youth of the individual. This material was to be followed by other portions of the Greek and Latin literatures, combined with the study of certain periods in history all selected upon the basis of progressive complexity of interests and consequently of objective materials. This idea, expanded, was given a fuller application to education in the form of the culture epoch theory by some of Herbart's expositors, notably by Ziller. The idea in brief is that the stages of culture in the development of the race are paralleled by the stages of mental development of the individual, just as there is a parallel between the embryonic or ontogenetic development of the individual organism and the organic or phylogenetic development of the species. Consequently, in order to follow the proper order in the psychological development of the child, the materials of instruction should be selected and arranged according to the stages in the cultural development of the race. The culture epoch theory, however, is only incidental to the idea of correlation of studies, being but one means for determination, not only of the order of arrangement of materials, but of their selection as well. The idea of cor

relation itself demands only that the materials of instruction even if classified into the various school subjects, should nevertheless be so organized that they preserve the unity which is essential to the development of a unified consciousness in the individual. In other words, the material should be so unified that it shall be wholly apperceived by the child as it is presented; and thus that it should strengthen and not, through its lack of connectedness and dissimilarity, disorganize or make disproportionate this many-sidedness of interests, and consequently weaken the character of the child.

Herbart and his immediate followers prepared a scheme of concentration of studies, that of the unification of all school instruction upon one central core study, either literature or literature combined with history. Some groups of his followers, notably some in this country, have elaborated schemes of coördination of studies. Coördination does not seek to find one central core study, but accepts a given number, — five in the scheme of Commissioner Harris, — selected for logical and psychological reasons, as of equal value. These are to be organized so that the material is arranged in a psychological order and that the unities between the subjects are made evident and preserved. Various forms of concentration, based either on the literary and historical studies, or on nature studies, or, where combined with the Froebelian influence, on social activities direct, are frequently employed in the lower grades. In the higher grades few attempts, save at the coördination of studies, have been tried.

General Method. — Independent of any of these schemes is the idea of a general method for the presentation of any subject or any portion of a subject; — a method based upon the nature of the mind's activity and taking its peculiar force and application from the apperceptive or assimilative character of the mind's growth, previously described as the basis of the entire Herbartian pedagogy. Since the early sense-realists a general method had been sought; Herbart was the first

to work this out in detail so that it becomes a method for the immediate process of instruction by the teacher. This method consists in a given series of steps, determined not by the character of the material, but by the way in which the human mind acts and human consciousness expands. These steps are to be followed in every unit of instruction, which presumably is the recitation, though particular units may be determined rather by the subject-matter than by time limits. There is no particular virtue in these steps themselves, nor is the goal that Herbart aims at to be attained by the mere formal application of these steps to a recitation. This method is a mere form to aid in the realization of the great end of instruction, a form of which a teacher who is successful in obtaining that end may be in entire ignorance and in the use of which even the teacher familiar with it should most often be unconscious.

The immediate function of instruction is to furnish the mind with ideas, to establish their proper relationships, to connect them or color them with good will or sympathy that will lead to moral action. The concept interest, which indicates the activities through which the mind expands into the many-sidedness of character, can be differentiated into certain steps; — namely, observation, expectation, demand, action. Consequently instruction, which aims to develop this many-sided interest, "must universally point out, connect, teach, philosophize"; and "in matters appertaining to sympathy it should be observing, continuous, elevating, and active in the sphere of reality." Corresponding with these stages are the formal steps of instruction, — clearness, association, system, method, — which may be taken as the basal, at least the basal psychological principle of the recitation. By clearness is meant the apprehension of a single object — practically the observation of Pestalozzi. Ziller, who elaborated this plan of Herbart's pedagogy in its application to elementary education, divided this step into two: *preparation*, — the calling to mind of such

older ideas as have intimate connection with the new to be imparted, and their arrangement in such an order as will explain the meaning of the new and tend to make lasting the impression which it makes; and the actual process of *presentation* so that the new will be wholly appropriated. Here the concrete materials are finally brought together so that a general idea is found. The third step is that of *association* — the actual combination of the new with the old. This is the elementary stage in the apperceptive process, and this preliminary fusion is largely the work of the imagination. The fourth step is *system*, — the complete separation of the general notion from its concrete embodiment in particulars. The general concept is now to be related in a systematic way with previously acquired knowledge, so as to make an organic whole. This is the work of reflection and requires both repetition and definite form of expression in language. The fifth step is *method* or *application.* This is the progressive reflection of the pupil as he realizes the general concept gained through activities: the child must make application of his stock of ideas, as rapidly as they are gained, so far as is possible in the limited activities of a child's life. In this way the child's ideas develop and are fused into a harmonious and organic mental life, out of which grows, through suggestion and direction, his active life.

This is but a brief and necessarily superficial account of Herbart's treatment of method, for no man has written with keener insight or with greater suggestiveness or with deeper philosophical penetration concerning the immediate work of instruction. Thus it follows both from his philosophical and psychological foundations of education and from his practical discussions, that the Herbartian influence reveals itself in a strong emphasis upon the importance of instruction and consequently upon the technique of the schoolroom, especially of the recitation, rather than on the general spirit, as was the case with Pestalozzianism. He has truly summarized his sys-

tem and thus indicated this influence: "Instruction will form the circle of thought, and education the character. The last is nothing without the first. Herein is contained the whole sum of my pedagogy."

THE FROEBELIAN MOVEMENT. General Characteristics. — The Herbartian movement has been primarily one of educational philosophy, from the principles of which have been deduced in various forms the appropriate practices, varying with the time, place and interpreter. On the contrary the Froebelian movement has been one primarily of practice concerning one particular stage of schooling, — the kindergarten, — from which has grown among the educational public at large a gradual appreciation of the underlying principles, applicable to every stage of instruction. One great contrast in point of view and in point of emphasis, indicating a fundamental divergence in theory, differentiates the Froebelian from the Herbartian movement. This latter, as previously indicated, is characterized by an emphasis upon the importance of the teaching process and by a perfecting of the technique of instruction. The Froebelian movement is similarly characterized by an emphasis upon the importance of the child, upon his interests, experiences, and activities as the starting point and means of instruction, and by an improvement in the spirit, purpose, "atmosphere," and *morale* of the schoolroom. One exalts the function of the teacher; the other exalts the importance of the child. Herbart laid the emphasis upon instruction as a means for forming moral character; Froebel upon the stimulated and guided activities of the child. Pestalozzi, Herbart, Froebel — all made moral character the end of education. Pestalozzi would secure it rather by external means, — through direct training in moral virtues, — and by the distinct though simultaneous training of "head, heart, and hand." Herbart sought the same end, through instruction; for ideas stimulated desires, desires

action, action properly guided by ideas gained from "inter course" produced character. To Froebel, education, beginning with the spontaneous activity of the child and leading from that to ideas and permanently formed volitional interests, was more largely an emotional and volitional than an intellectual training.

In educational theory Herbart worked ahead from the Pestalozzian basis of training in sense perception to the training in apperception and the complete assimilation of the results of experience into a well-formed character. Froebel, from the same starting point, worked back to the more fundamental basis of the inherent character of child nature, as revealed in an earlier period of unorganized sensations, where the possibility of training was found to be most largely in the emotional-volitional aspects of mental activities. The volitional, not as with Herbart the intellectual, character of the human mind was found to be fundamental. While the practical application of these new ideas was made by Froebel to only one stage of education, and that the earliest, the kindergarten, the principles themselves as formulated in his more philosophical works, are fundamental to all stages of education. The attempt to make this application to higher stages in the present and in the future is after all the true Froebelian movement. Some of the most profound changes in educational thought and practice of present times are in accord with, if not in response to, these demands formulated by Froebel. To indicate the far-reaching character of these principles one quotation from *Education as Development* will suffice.

"Therefore, that which is to have true, abiding and blessing, instructive and formative effect on the child as pupil and scholar, and as a future active man, *viz.* independent employment — must not only be founded on life as it actually appears, must not only be connected with life, but must also form itself in harmony with the requirements of life, of the

surroundings, and of the time, and with what they offer. It must especially have an arousing and wakening effect on the inner life of the child and must thus spontaneously germinate from that life. This is the nature of the developing educational training of man, to follow and practice which I regard as the indispensable of the time (founded on the law of nature and the world, on the necessary laws of the formation of life), and the maintenance of which I recognize as the demand of life. I hold it in its general comprehensive application as so highly important to the life of humanity and of the nations, that its realization and accomplishment (in proportion to the degree in which it is connected with simple unchangeable laws) should be the task of all education, in all relations of life, and under all circumstances."

Herein are stated the two phases of the most pronounced change in matters of instruction in our own times. The first of these concerns the curriculum, and posits that the materials of instruction, if they are really and vitally to produce the development of the child's mind and nature, must be selected from life as it now is and as it affects the child and comes within his experience. The second is the complementary belief, that if education is to produce the results desired, both individual and social, the effects of school instruction must relate directly to life as it now is, through the activities of the child that form the culmination of the process of instruction.

Relating as it does to this contemplation of the whole problem of education from the standpoint of the child's nature, to this conception of the fundamental nature of its volitional character, and to the determination of all other problems of education from this one principle of development through self-activity, the Froebelian movement, aside from the kindergarten aspect of it, is thus even less well defined in its influence upon school work and consequently more difficult to trace than is the Herbartian influence. However, it is evident from this introductory statement that these ideas permeate all modern educational thought. In general, one

may say that whenever the emphasis in school work is placed upon the activities of the child rather than upon the technique of the process of instruction, and whenever development of character and of personality is sought, rather than mere impartation of information and training of intellectual abilities, that there the Froebelian influence is to be recognized.

Friedrich Wilhelm August Froebel (1782–1852). — Of all educational reformers, Froebel's experience as well as his theories most nearly resemble those of Pestalozzi. In fact, both his novel experiences and his revolutionary theories start from direct contact with Pestalozzi. Yet his life's activities do not throw so much light on his ideas as do those of Pestalozzi; for Froebel's theories were but educational expressions of the dominant philosophical thought that had been formulated in philosophical form early in his life. Further than this, his life's work was not so much in developing these on their logical side as in perfecting their application. On the other hand Froebel possessed a power which few reformers have possessed, least of all Pestalozzi, of crystallizing theory into practice; of interpreting general principles in concrete form; of both stating the philosophy and organizing the practical application of new educational doctrines. Nevertheless, Froebel's practical attempts at institutional administration, in putting his new ideas into operation, were like those of the earlier reformer. But this was due not so much to lack of practical ability, — though he, like other geniuses, found it difficult to work with other people, — but rather to the troubled character of the times in which he worked, and to the fact that the way of the reformer, since he is a transgressor, is hard.

Froebel's early education was fragmentary and without definite purpose. It was unsatisfactory, as he later said, because there was no unity whatever between the subjects taught and no connection between the subjects of instruction

and life. His youth was divided between university work and practical scientific work, for he was in turn an apprentice to a forester, an accountant on large estates, a surveyor, and later a museum assistant in geological sciences. Out of all this experience came two fundamental results,—a profound love for nature and a conviction that throughout nature one found revealed that unity of idea and realization that was preached in the philosophy of the university but nowhere found in educational work. At twenty-three he was persuaded to become a teacher in the Pestalozzian Institute at Frankfort, and thus discovered his life calling. After two years here he became private tutor to three boys whom he took to Pestalozzi's Institute at Yverdun, where he remained in association, though not in immediate organic connection, for two years more. From this experience came a devotion to educational reform, for which he now further prepared himself by completing his university course. After having participated in the effort to overthrow Napoleon,—an attempt upon which Froebel entered with great enthusiasm because it was a movement in the political sphere toward that unity for which Froebel ever strove,—he gave up, in 1816, his position as curator in the Berlin Museum and undertook his work of educational reform. To this he was inspired by the complete lack of unity and clear purpose in existing educational work, by his experience with the Pestalozzian movement, and by his discovery of the unity in the processes of nature. In a peasant's cottage, with five little children, he opened his "Universal German Educational Institute." This was the institute at Keilhau, whither it was removed in 1817, where for many years Froebel worked along the line of educational betterment, somewhat similar to that of Pestalozzi. Here he met the same opposition from established authorities, strengthened now by the political opposition to all revolutionary ideas. Though the work was far more substantial than the similar work of Pestalozzi, because supported by far

wider philosophical knowledge and by greater practical ability among the assistants, yet Froebel revealed a similar lack of power in practical management. The scope of his educational work was far wider than that of Pestalozzi, and was directed largely toward secondary studies. It was not until 1826, after the appearance of his most general treatise, *The Education of Man*, that Froebel, directed thereto especially by the treatise of Comenius in that subject, turned his special attention to the educational possibilities of the earliest years of childhood. Froebel had ever been a close student of children, and had even then made further progress in the use of play and the spontaneous activities of children than had ever been done previously. A Government inspector was sent in 1825 on account of the supposed revolutionary character of the work of the institute. His report, together with a plan for a new institute issued by Froebel in 1829, brought into greater prominence than had the philosophical work of 1826 his fundamental principle. This was, that children are creative rather than receptive creatures and that all educational work should be based upon this inherent tendency of children to express themselves in action. To quote but a portion of one sentence from the report of a presumably hostile inspector: —

"Self-activity of the mind is the first law of this instruction; therefore the kind of instruction given here does not make the young mind a strong box, into which, as early as possible, all kinds of coins of the most different values and coinage, such as are now current in the world, are stuffed; but slowly, continuously, gradually, and always inwardly, that is, according to a connection found in the nature of the human mind, the instruction steadily goes on, without any tricks, from the simple to the complex, from the concrete to the abstract, so well adapted to the child and his needs that he goes as readily to his learning as to his play."

During some eight or ten years of unsuccessful practical

attempts, — one of them at Burgdorf, where Pestalozzi had made educational experimentation famous, — Froebel crystallized his ideas concerning the education of the earliest years. In 1837, in the little village of Blankenburg, near Keilhau, he put into operation the first of these new institutions, to which two years later he gave the name of *kindergarten*. To this new educational propaganda, Froebel devoted the remainder of his life; for here in this virgin field the new educational ideas were more clearly expressed and more readily realized. During the period immediately following the establishment of the first kindergarten was produced the greater part of the Froebelian literature. This literature was chiefly devoted to the practical elaboration of these new kindergarten ideas and to a popularizing of the institution itself. This latter phase of his work made slow progress, and from 1851 to 1861 their very establishment was prohibited by the Prussian government, on account of the supposed revolutionary character of the kindergartens. On the other hand, the practical work elaborated by Froebel yet remains, with slight modification, the basis of kindergarten methods.

Character of his Writings. — In the following brief statement of the leading Froebelian principles it must be borne in mind that, notwithstanding Froebel's unusual power of making the practical interpretation of his abstract ideas, his philosophical writings present peculiar difficulties of interpretation and are characterized by a lack of clearness and by an indefiniteness quite as great as that of Pestalozzi, though of a very different kind. While of a philosophical character, his ideas are expressed in emotional rather than in scientific form. Since the idealism of Froebel verges on the transcendental and mystical, exact interpretation is often impossible. Froebel was devoutly religious; but, influenced by his philosophy and his love of nature, his religion was almost pantheistic in thought, and in expression bordered on the

ecstatic. There results a symbolism, even a search for occult interpretations in the simplest phenomenal relations, that is peculiarly foreign to an age so strongly scientific, even positivistic, as was the latter half of the nineteenth century. To this fact is largely due, not only the difficulty of interpreting Froebel, but also the lack of sympathy for and even the pronounced hostility to many ideas fundamentally acceptable. But even at best Froebel's philosophy and psychology leave much to be completed and much to be restated entirely. That work of restatement of principle and completion of detail is the task of educational thought of the present. From Froebel, even more than from Herbart or from Pestalozzi, have sprung the chief streams of present educational thought.

However much Froebel emphasized the principle of unity as the all-important one, there does not exist in his writings the unity of a system of educational thought which can be expounded. Such unity as does exist is to be found in permanent and ever present principles of interpretation of life, of reality and of educational problems, and in the tendency and purpose of all his thought.

The Law of Unity, or Inner Connectedness as the Basis of Education. — Froebel's educational thought is founded primarily upon a philosophy, as Herbart's was upon a psychology; though, to be sure, there was also in the former case an accompanying psychology and in the latter an accompanying philosophy. In regard to both philosophy and psychology, the two educational reformers radically disagreed. It was from the dominant idealistic philosophy of Kant, Schelling, Hegel, even in the extreme form given by Fichte, against which Herbart ever protests, that Froebel starts. The fundamental tenet of this entire philosophical movement was to find the explanation of reality and, on its practical side, of life, in the fundamental unity of existence both of nature and man in the absolute spirit. The absolute is no longer mat

ter, it is spirit — self-conscious spirit; and in this self-conscious spirit are found both the purpose and the presupposition of the world, the explanation both of the origin and the meaning of existence — both of man and of nature. This gives the unity which furnishes the explanation of the manifoldness of nature and of life, for the only real differences are those of the units or subunities within the all-encompassing unity which gives meaning to all these seeming diversities. To Froebel then this spiritual essence, or reality, was the source of all life, of all existence; and it was the purpose of education to expand the life of the individual and comprehend this existence through participation in this all-pervading spirit. This *inner-connectedness* furnished the explanation of all reality; the realization of it in the life of the individual constitutes the aim of education. The opening paragraph of *The Education of Man* contains the whole theory in essence.

"In all things there lives and reigns an eternal law. To him whose mind, through disposition and faith, is filled, penetrated, and quickened with the necessity that this cannot be otherwise, as well as to him whose clear, calm mental vision beholds the inner in the outer and through the outer, and sees the outer proceeding with logical necessity from the essence of the inner, this law has been and is announced with equal clearness and distinctness in nature (the external), in the spirit (the internal), and in life which unites the two. This all-pervading law is necessarily based on an all-pervading, energetic, living, self-conscious, and hence eternal Unity. This fact, as well as the Unity itself, is again vividly recognized, either through faith or through insight, with equal clearness and comprehensiveness; therefore, a quietly observant human mind, a thoughtful, clear human intellect, has never failed, and will never fail, to recognize this Unity. This Unity is God. All things have come from the Divine Unity, from God, and have their origin in the Divine Unity, in God alone. God is the sole source of all things. In all things there lives and reigns the Divine Unity, God. All

things live and have their being in and through the Divine Unity, in and through God. All things are only through the divine effluence that lives in them. The divine effluence that lives in each thing is the essence of each thing."

Every individual object and being participates in this "all-pervading, self-conscious unity," which gives meaning to the individual object and to the individual life. To come into a realization of this unity, to develop the "inner-connection," to expand this germ of the universal that lies in each one, to develop this "divine essence" until one partakes of its fullness — this is education. For, as he says elsewhere, "It is the destiny and life work of all things to unfold their essence, hence their divine being."

The intense religious feeling that pervades all of Froebel's writings thus finds its explanation; it is not something extraneous — tacked on, as it were. It is the very breath of life of his system. Every being or reality participates in this essence and to that extent is capable of revealing it or, if conscious existence, is capable of attaining to it. Hence every object of nature can reveal God. The object of education is the realization of this destiny, the development of this essence into unity with the absolute. "For nature as well as all existing things is a manifestation, a revelation of God. The purpose of all existence is to reveal God. All existing things are only through and because of the divine essence that is in them." The constant repetition of this and similar ideas is not cant; it is a part of his philosophy, and with Froebel philosophy was not a theory, but life. In fact, this religious belief is identical with the fundamental law of inner-connectedness, and it in turn becomes the basis and gives the purpose to education.

In his *Education by Development* he states the reasons why the law of connection or of unity is the fundamental law of education. In substance, his statement is as follows: (1) Through it we thoroughly comprehend the nature of the

child. (2) By it the individual, the child, is recognized as the central point of all relations of life. (3) Through it we obtain a true and evident purpose in education and a suitable means and method for accomplishing this aim. (4) Education founded on this law is *practical*, since it demands immediate accomplishment and application. (5) Such an education is suited to this practical age, which demands the realization in life of the highest ideals formulated from experience. (6) Such an education adapts itself to every age of life and every stage in the child's development. (7) This education of unification is peculiarly appropriate to an age of isolation, contrariety, and individualism such as the present. (8) Such an education would make clear and real in life the highest philosophical and ethical thought. (9) Such an education would check the growing proletarianism and the deadening and mechanical effect of an age of industrialism, since it unfolds, strengthens, and develops the power of the child until it can maintain itself in independent personality, since it teaches him how to treat material according to its nature, gives to work its high significance as creative activity and cultivates the power of thought, of will and of action. Thus it lays the true foundation for character.

From his belief in the reality of this unity Froebel drew his belief that nature revealed God to the child; hence there proceeded both his emphasis upon the use of natural phenomena and nature study with the child and his symbolic presentation of this material. He saw the unity in organic life, and thus became one of the earlier advocates of the theory of organic evolution; from this he was led to place an altogether new emphasis upon the study of nature, of botany, zoölogy, etc., by the child. He believed that the same unity was to be found in the inorganic world and that it became a symbol to the child of all the higher unity of thought and life. Consequently from this conception he derived his ideas of the use of the "gifts" in the kindergarten. In that which he drew from

his own feeling of the universal as expressed in inorganic forms — as in crystals, — there is much that is fanciful; the more so when the fundamental philosophical thought is not at all understood. Between the individual and the race, which form in reality but one great organic life which the school should epitomize, is to be found a higher unity. The school thus becomes an association for the child wherein he discovers in a simplified and idealized form all the relations of society. The true function of the school as a means for social progress as well as the instrument of individual development is thus revealed. In the life of the individual there is the same unity; that between the stages of infancy, childhood, youth, manhood, which is so set at naught by the school in its failure to comprehend this unity that education itself becomes but a form. Even more thoroughly than did Herbart, Froebel recognized this unity and the organic connection between the various subjects of study as a basis for a necessary reorganization of the school curriculum. Hence the culture epoch theory or, more exactly, the idea of correlation of studies, has received support among Froebelians, though with no adherence to particular schemes, as among Herbartians. In a similar way, this law of inner connectedness — the unity of the objective and the subjective — gave to Froebel his conception of mental growth and led to an emphasis upon the unity of the knowing, feeling, and willing activities, that is quite as fundamental and, although not definitely organized by Froebel in psychological terms, much nearer the modern scientific views of the nature of the mind's growth and activities than is the Herbartian psychology.

At every point Froebel found a unity between thought and life, which is to be developed by education. Education becomes the continuous progressive adjustment of the individual to the larger life, which is his by destiny and in which he must find his being, his true self.

Development as the Process of Education. — The philosophi-

cal idea of unity demands as its accompaniment the idea of continuity of generation of all things. The individualism of the period of Rousseau gives way to the idea of organic unity and development. Philosophically, reality now becomes the spiritual, — mind, — which is absolute and self-determining. This self-determination applies not only to the origin or the existence of things, but also to the process by which the world of manifestation is sustained. The scientific expression of the dominant idea, of which the English scientists, Spencer, Darwin, Wallace, later elaborated the formulæ of the process, gave the theory of organic evolution. This idea Froebel seized and, first of all, applied to education. Not only is this found in his theoretical statements concerning the nature and process of education, but it also gives deeper meaning to the use of the *gifts* and the concrete activities of the school-room; for a primary principle in both is that each following activity includes each preceding and earlier one. "All that follows must go out from that which precedes," becomes almost cabalistic in its meaning in his various writings, in that it contains so much meaning that is occult to the casual reader.

In his *Education of Man* the general philosophical idea is thus stated as usual in religious form. "God creates and works productively in uninterrupted continuity. Each thought of God is a work, a deed, a product, and each thought of God continues to work with creative power in endless productive activity to all eternity." Evolution is the tendency of this unity — spirit — to work itself out into the manifold activities of spirit and of the accompanying phenomenal expressions. Thus education is but a phase of the general process of evolution; it is a development by which the individual comes into realization of the life of the all-encompassing unity of which he is but a unit; a development by which his life broadens until it has related itself to nature, until it enters sympathetically into all the activities of society, until it participates in the achievements of the race and the aspirations of humanity

Though these ideas are usually expressed in abstract philosophical form, and though he never arranged them in a logical system, Froebel also elaborated a series of exercises, called gifts and occupations, through which this unified development could be brought about in the hands of a skillful teacher. The activities called for by the gifts and occupations are not merely useful to the teacher and beneficial to the child; to those who understand and enter into Froebel's point of view, they have a far deeper meaning, for they offer means, most carefully worked out with profound philosophical insight, for producing, or at least assisting, this development of the child's mind and spirit. And yet it must be noted that the extent to which this development is attained does not depend upon the mere use of these exercises as prescribed by the master, however much emphasis is placed upon the self-activity of the child, but upon the extent to which the teacher possesses this same insight into life and reality, and the extent to which the child's mind is possessed by the same motive and consciousness of this unity of existence. The use of the gifts and occupations, merely to interest the child in his environment and give him a knowledge of it or even to relate him to it, is not the realization of the real design according to Froebel. Only when these gifts and occupations, in fact any school activities, are used upon the basis of this principle of unity and this process of development are their true educational values obtained. Then will be realized the Froebelian truths: "That which lies in the whole, lies in the smallest part; thus, that which lies in humanity as a whole also expresses itself even in the smallest and youngest of its children. And further, that thus, that which lies in humanity as a whole and expresses itself even in the child, slumbers in the child as essence and germ, makes itself known again in the smallest detail of its nature; indeed, definitely shows itself therein to a clear spiritual eye."

The essential idea of the *Education of Man* Froebel states as

follows: "God neither ingrafts nor inoculates. He develops the most trivial and imperfect things in continuously ascending series, and in accordance with eternal, self-grounded, and self-developing laws." Education is but the realization of the evolutionary process in its highest stage as revealed in the individual human being. Thus Froebel, first of all, states the view of education which is yet to prevail.

Self-activity as the Method of the Process. — In emphasizing the principles of self-activity as the method by which education — this development previously described — takes place, Froebel again indicated that he participated in the dominant thought-life of the early nineteenth century and that he was the first to make application of these ideas, common to philosophy and to science, to the problems of education. In the department of scientific thought the old idea of the hard-and-fast classification of forms of life had given place to a more general belief in the idea of development of lower forms into higher and of the connectedness of all forms of life. In this respect the general introduction of the term "biology" to indicate a general science of living forms, just at the opening of the century, is significant. At this time (1802–1809) Lamarck had published his views concerning the forces that produced this development of higher forms of life from lower and thus made clear one of the principles that connect all forms of life. This was the theory of use and disuse of organs, which was but a special application of the principle of self-activity. Previously, evolution had been explained by such scientists or philosophers as believed in it by the varying influences of external conditions, such as climate. With Lamarck, the animal, the organism itself, became the chief factor. As the use of the arm or of any particular muscle of the body will produce a corresponding development, so the effort of an organism to use any organ in a particular direction will produce a corresponding development; and conversely, its disuse will cause a proportionate

atrophy. However unsatisfactory the theory might be in explaining the origin of forms and however limited its application might be to the plant world, this was the first general explanation offered of the origin of diversity of forms and of the principle of their growth. In philosophical thought these limitations of one particular application of the idea presented no insuperable difficulties; for this tendency to use organs in any one direction was but one manifestation of the principle of activity through which and by virtue of the possession of which the individual organism participated in the all-pervading essence that gave meaning to all material existence. The dominant philosophy of the times, especially as Froebel accepted it, held that there is a fundamental unity in all things, a permanent principle in all changes and forms of life. There is a single formative energy which reveals itself in nature, that is in external life, as force, and in consciousness of the inner life, as mind. This energy, as intelligence in the individual, builds up for itself its own world. The self — the mind — is not so much *possessed* of activity as it *is* activity. Through this activity it realizes itself, builds up its own world, becomes conscious of itself, and works out its own destiny. This is true both in the intellectual and moral application.

These ideas are given different formulation, different emphasis, and different combination in the systems elaborated by the various philosophers mentioned, and in order to understand Froebel clearly a mastery of the thought suggested here in but a single point needs to be worked out in the detail impossible in a brief text-book. The point to be noted is that Froebel but applied to the problems of education the idea that was the vital element of the thought of the period.

In connection with Froebel's practical work, it has been noted that early in his experience he had realized the significance of this principle when applied to educational method

At Keilhau self-activity of the mind was the first law of instruction. That is, the child was regarded as a creative rather than a receptive being, and all educational processes were made to take as their starting point, the natural inclination of the child to express himself in action.

In the discussion of the fundamental idea of unity, the significance and meaning of self-activity were also involved. Each individual thing or being participates in the unity of the whole through this very tendency to "unfold its essence," to develop its nature, and to do this by realizing the connectedness with its environment, with life as a whole and its unity with the absolute. This unfolding of essence or development of nature is through forces inherent in the individual, through self-activity. Self-activity—this tendency to realize its destiny, to accomplish its end as an element in this complex organism, reality, implanted by nature in each individual —is the most fundamental characteristic of all life. This is even more clearly seen when the process of development is considered; for self-activity becomes the method of spiritual evolution, just as later Darwin emphasizes natural selection as the chief method of biological evolution, or as Lamarck had earlier emphasized use and disuse as the most prominent method. To the philosophy of the times self-activity became the method of all evolution, since to it the spiritual — mind — is reality; and it is by this alone that the world of manifestation is sustained.

A few words further will indicate somewhat more clearly the educational significance of self-activity as the principle of method. Froebel emphasizes at every point that self-activity is the process by which the individual realizes his own nature, by which he builds up his own world or representation of the external, and by which he unites and harmonizes the two. Thus the life of the individual is the process: (1) by which he knows nature, or the objective world; (2) as through this he comes to know himself, by which he comes to know

his own nature; and (3) by which he becomes a part of the life of both nature and humanity. In all of this, if there is any true realization of the self, of the possibilities of individual character — the individual has determined his own activities and is free. So far as he works under compulsion of external force he fails to realize this unity.

Self-activity — activity determined by one's own motives, arising out of one's own interests, sustained by one's own power — can alone produce this evolution of mind, can alone secure that which is held to be the aim of education. Such activity in a way is compelled, since it is in response to the inherent nature of being and of the individual; but as the individual responds only in obedience to the force felt within his own nature, and not to one from without, such activity is free — it is *self* activity. Because such activities are free, and at the same time take place according to law, — the laws of one's own nature, the laws of mind, — it is possible to formulate them and to accept them as a guide to all educational work.

Thus it follows that all processes of instruction must start from or originate with this volitional interest of the child. Beginning with his spontaneous activities, action may be sustained and may be stimulated toward certain ends that have far more permanent value than such activities undirected or uninfluenced.

From these same general principles, especially this connectedness of the spiritual with the material, or this realization of the nature of self in the world of externals, it follows that no such process of instruction — starting as it must from some activity springing from the nature of the child — can be complete or can have its full educative value until it has had some realization in action, until it has to some extent modified conduct. Any impression upon the mind is wasted unless it has had its appropriate physical reaction. Modern science would put this in very different form from that of the

philosophy of Froebel, but the thought is the same and in its educational application it was formulated by Froebel long ago.

Not only does the tendency inherent in the child's nature relate to conduct and action in the physical sense, the child reveals the same spontaneous effort to indicate its conception of things, to reveal the processes of its own mind, — that is, its thought. It attempts through this revelation to bring about a harmony between the world of thought and the world of external reality. Such spontaneous efforts constitute self-activity, and give to the teacher the opportunity for instruction; that is, for creating a fuller harmony between the inner and the outer, between thought and external world, than the child unaided would be able to do.

Froebel, speaking of self-activity, says: "The good results of all true education depend on the careful notice, fostering, development, strengthening, and cultivation of this feeling on the part of the child that he is a whole, and yet also a part of all life; and on the avoidance of every violation, clouding, or disturbance of it." Thus for the school, self-activity means this desire of the child to enter into the life of others and the life around it; the desire to help, to find out, to discover, to participate in common activities, to create, to discover the identity or connection between itself and the activities and processes of others — the discovery which constitutes knowledge. These are all forms of self-activity, and are to be seized upon as the sole motives to those school processes that the teacher wishes to make educative. In whatever form it may take, this desire of the child to become a part of the life around him, and thus realize his own being, is the beginning point of all instruction. This determines the method of education; for begun in this way, these activities, in whatever direction they may be guided by the teacher, should be sustained by the child's own powers as he gradually becomes able to put forth greater and greater effort.

The interpretation which Froebel himself gave to this effort of the child to relate himself to the world-whole and the methods which he took of stimulating it by use of certain objects and exercises, led to a symbolism which alienates many from his thoughts in general. However, this symbolic use of these particular objects and activities, in so far as they apply to the higher stages of learning, has no vital connection with his fundamental theories. The extent to which such interpretation is valid for kindergarten work is aside from our interest here. This is to be answered in the light of prevailing ideas and practices rather than by the practices formulated by Froebel for his own time and people.

Education is not a preparation for a future state. This life which the child seeks to enter is not the adult life, but the life around him. Education finds its meaning in the process, not in some condition remote and only real through the imagination. The aim of education is development, the process of education is development. In so far as the child enters to the full extent of his powers and his nature into unity with the life around him, the development of the present is secured; the development of the future is measured by the same standard. The aim of education is thus realized as fully in the child as in the adult. There is no ulterior end. Stating that the end is also process, is found in development, is to say that the end and process are found in the child. Yet not in the child alone, but in the child as he relates himself to the world around him.

We have seen that Froebel as well as Herbart and Pestalozzi emphasized the moral character of education. With Froebel education is the formation of character because it is the determination of the nature of the child's activities. Education is moral because it is the relating of the child to life and the revelation of the child's inner nature through action. Ordinary education is defective because it results in the development of intellectual attainments and of insight greater than

the complementary power of accomplishment. As with Rousseau, though in a far wider sense, Froebel would have the power of accomplishment and of action developed as fully as the powers of acquisition and of reflection, because developed along with them. By basing education upon the activity of the child and gauging education by the child's self-activity, power of execution is developed to the same degree and in the same connection as the other acquisitions. There is no hiatus between knowledge and action; no conflict between theory and practice; no discrepancy between profession and deeds.

Self-activity cannot be defined in a simple statement. Froebel nowhere so defines it. But the interpretations just given are some of the more important implications of the principle, which will be recognized as the source of many fruitful educational ideas of the present.

Influence of Froebel on Educational Practice. — Froebel's conception of school work, like that of Pestalozzi, was a radical departure from the established and traditional practice still in existence, despite the work of Rousseau, Basedow, and Pestalozzi. For these changes, which were justified by preceding reforms largely on empirical grounds, Froebel gives a real philosophy, which in time becomes illuminating. In *Education by Development* Froebel asserts that, —

"Education and instruction, discipline and school, seek, as a rule, the grounds for determining their requirements and their management either wholly outside of the life of the children or, even if within the life of the human being, yet derived from a time which is, in respect to the child, so far in the future as to have for him no power at all of attraction, of arousing, and of development. That which the child is to do and learn must proceed from its power of will and action inwardly united to a doing, to a desire, by means of the direct, instantaneous effect of the total life united in itself. Certainly this is shown by almost all our subjects of instruction, especially as applied to the mass of people. Our instructions in reading and writing, as also in counting and speaking,

arithmetic and language, are especially feeble, as they mostly begin with the abstract with which instruction should close; hence the few abiding results of this instruction in life."

The school, to Froebel, was a place where the child should learn the important things of life, the essentials of truth, justice, free personality, responsibility, initiative, causal relationship, and the like; not by learning them, but by living them out.

According to the fundamental idea of unity, the school was to be an institution in which each child should discover his own individuality, work out his own personality, and develop his power of initiative and of execution. He was to do this through coöperation with others in similar endeavors, in work where interest was shared by all, responsibility borne by all, and rewards enjoyed by all. Mutual helpfulness was a constant motive. The school, as the world, was to become a unity in which the units of developing individuality were to find their perfection through participation in the life of the world. "His kindergarten or school," says Hughes,[1] "was a little world where responsibility was shared by all, individual rights respected by all, brotherly sympathy developed by all, and voluntary coöperation practiced by all." Thus cooperation as the correlative of unity, diversity within the unit, — the law of life and of reality, — is to become the principle of the school. The school becomes a miniature society. Education becomes a phase of life, not as a preparation but as an epitome.

Instruction is no longer synonymous with education, nor even with school work. It becomes the middle term of a process which starts from the child's spontaneous activities and native interests and terminates in some creative use or tangible expression of the knowledge imparted by instruction, as spontaneous activities are directed toward some given and

[1] *Froebel's Educational Laws*, p. 16.

approved ends by the teacher. Upon the native tendency is thus grafted a habit or custom, a mode of activity and of thought which is approved as a desired educational end. Thus education seeks neither to eliminate nature, nor to let it severely alone, but to help nature, — to guide it to ends higher than those it would reach unaided, or at least to secure these ends by readier and more direct means.

Play. — One of the most marked influences of Froebel upon the practical work of the schools was the demonstration of the value of play in the earlier stages of education. The educational value of play had been asserted by Plato, and by him in turn justified by the practical use made of it by the ancient Egyptians. All through the history of education, especially with the early Renaissance writers, this view is frequently expressed. For a half century preceding the founding of the kindergarten, there had been a well-defined movement in German educational thought and practice, in which the educational value of play was a chief characteristic. In this movement the physical value was chiefly emphasized. With Froebel the intellectual and moral value was made supreme.

As the most characteristic spontaneous activity of the child, play becomes the basis of the educational process in the early years. Resulting most directly from the native interests of the child, it furnishes the best natural stock upon which to graft the habits of action, feeling, and thought approved by the educator. It is through play that the child first represents the world to himself. Consequently it is through play that the educator can give to the child the interpretation of life which he seeks to impart. Through it he can best introduce him into the world of actual social relations, give him the sense of independence and of mutual helpfulness, provide him with initiative and motivation, and develop him as the individual constituting a unit in the social whole.

Froebel did not stop with the theoretical demonstration of

the educational value of play; he realized his ideas in the practical procedure of the kindergarten. But the general value of the use of play activities in the kindergarten has consisted largely in the demonstration to the educational public at large of a truer conception of the meaning of education. On the other hand, through a misinterpretation of and an over-emphasis upon this doctrine of interest, much that is detrimental has crept into many a modern school. There has grown a tendency to interpret the idea that play is educative into the pernicious fallacy that education is play. Thus again is revealed the tendency previously noted, to exalt a means intended as a starting point into an end in itself.

Educational Value of Handwork. — Analogous to the use of play is that of all forms of constructive work. As a motive representing the same spontaneity as play, as an activity representing the concrete constructive process of making real an idea or a process of instruction, constructive work might form both the beginning and the end of the educational process. Industrial training had been recognized as a phase of education by Rousseau, but upon social and economic grounds. Pestalozzi, believing as he did that all knowledge came through the senses and that education was primarily a training of the sense-perceptions, had added to this the psychological motive. Though he made these more practically effective than had hitherto been done, Fellenberg (p. 723) hardly seized more than the social and economic import. On distinctly educational grounds, Froebel gave to all manual and industrial training and to all forms of constructive work the place which they are coming to occupy in modern schooling. Pestalozzi introduced object study and manual activities largely from the receptive point of view, that of imparting knowledge, or at best that of developing the sense perceptions. Froebel gave them a creative purpose. Through them the child was to develop power, since each activity was to the child but an expression

of some idea or purpose gained through instruction. The use of any object or material or bit of information introduced into the school is to find out what the child can do with it. Thus, in a broader sense than with Herbart, all culminates in application; in a broader sense than with Pestalozzi, all school work is constructive. To Froebel there was an additional value which finds little recognition in present thought and which need not modify one's judgment of the practical value of Froebel's principle, — he found a spiritual, even an occult, meaning in the handling of material objects by the child. This is to be noted as strictly a phase of his symbolic teaching. This moral, spiritual, and religious meaning of constructive work he states thus: —

"God created man in his own image; therefore man should create and bring forth like God. The spirit of man should hover over the shapeless, and move it that it may take shape and form, a distinct being and life of its own. This is the high meaning, the deep significance, the great purpose of work and industry, of productive and creative activity. We become truly Godlike in diligence and industry, in working and doing, which are accompanied by the clear perception or even by the vaguest feeling that thereby we represent the inner in the outer; that we give body to spirit and form to thought; that we render visible the invisible."

The great significance of constructive work, however, is found in the principle that education is but the development of the power to give outward manifestation and expression of the inner self. Not that creation with the hand is the highest expression of this; but that the development of the power of this material manifestation is but the basis of the higher power of intellectual, moral, and spiritual expression in action crystallized into habits or into character. Therefore he held that for all education, —

"The time has now come to exalt all work into free activity; that is, to make it intelligent action. This can only take place

when the law, according to which all formative activity proceeds, is recognized and consciously applied, as it has been hitherto unconsciously applied. The occupation material of my method gives the means of unconscious application of the law on the children's part to rise to art in such a way as to come to their consciousness by degrees and be recognized as the guide and regulator of all formation. In no other way can human work be transformed into free activity. It can only become intellectual action out of what has been mere mechanical action when the occupation of the hand is at the same time the occupation of the mind. At the present time art alone can truly be called free activity, but every human work corresponds more or less with creative activity, and this is necessary in order to make man the image of his Divine Creator — a creator on his own part in miniature."

Constructive work in the school thus has a deeper purpose than training in sense-perception, development of skill, exercise of physique, imparting of a mechanical process, or acquisition of a trade. It is the most concrete form of expression of ideas, a most definite process in the formation of habits or the shaping of character.

Nature Study in the Schools. — Here again Pestalozzian and Froebelian, as well as other minor streams of educational thought, converge. What has come to pass in the actual study of nature in the schools is a resultant of them all. But with Froebel the basal principles underlying this study are quite different from those held by others. Least important of all with him was the simple knowledge of the facts of nature; most important of all was the moral improvement, the religious uplift, the spiritual insight, which the child got from association with nature. But when the deeper symbolism is rejected, the study of nature yet retains its function as a moral discipline, since the world of physical life offers so many analogies with the world of mental and moral activities. As a source of natural interests and as affording opportunity for varied activity, nature study retains a place in ele-

mentary instruction as influenced by Froebel, altogether aside from either the value of the facts taught or of the symbolical spiritual import. Thus, as the suggestive material for reading, writing, language work, constructive work, number work, nature study has come to play an important function in the school; not, however, as based upon the old Pestalozzian idea of object teaching, but as based upon the more fundamental Froebelian point of view of finding the basis for school work in native interests and spontaneous activities of the child as these are called forth by objects of nature around him. Even when all of these ideas concerning the function of nature study are rejected, Froebel has influenced fundamentally the conception of this study as it is conducted in all grades. For it is no longer nature analyzed and dissected according to the old formal classificatory science, but it is nature as life — the plant as developing, the animal as acting, the organ as functioning — that is studied. Thus, the Froebelian influence, while in its symbolism it is most antagonistic to the modern scientific attitude, yet in its conception of nature and of the value of science and the use to be made of it in the school it is quite in harmony with the modern scientific view.

The Kindergarten. — The fundamental thought of the kindergarten is to aid the child to express himself and thus produce development. To accomplish this he must start from his native interests and tendencies to action. The work of the school must be based wholly upon "self-activity" and must culminate in the expression or use of the ideas or knowledge acquired in the process of the activity. The primary aim is not acquisition of knowledge, but growth or development, in which knowledge functions merely as a means to an end. Knowledge is, as it were, a subordinate- or by-product; yet always essential, if growth is to be secured. Both the acquisitive and assimilative processes — exalted into ends in all previous school procedures — are here wholly subordinated.

Both appear in every completed educational process as stages preliminary to, or incidental to, the expression or constructive process.

The forms of expression of the child's nature which Froebel seized upon as of importance in this training were first gesture, second song, third language. Through these means Froebel sought to have the child express his feelings and ideas. He devoted the remainder of his life to the organization of material in such forms of play, games, constructive activities, stories, and the like, as would assist the child and would furnish material to the teacher for directing the child's interests and actions. So far as possible these means were to be coördinate. The story, for example, when told by the teacher, was to be expressed by the child, not only in his own language, but through song, or gesture or pictures, or construction of simple articles from paper, clay, or other convenient material. In this way ideas would be given, thought stimulated, the imagination vivified, the hands and eyes trained, the muscles coördinated, the moral nature strengthened through the effort to put into concrete objective form the higher motives and sentiments aroused. Thus the aim of educational, many-sided development was to be secured. The chief materials of the kindergarten, aside from the songs, the *Mutter und Kose-lieder*, Froebel organized into a series of "gifts and occupations." These are introduced gradually and in order. As the child becomes familiar with the properties of the one gift or the activities called forth by the occupation, he is led on to the next, which grow out of the preceding, each introducing new impressions and repeating old ones. The distinction between the gifts and occupations, though commonly made, is an arbitrary one. Froebel himself called all the activities occupations, and the materials for them, gifts. But the distinction seems to bring out a most prominent tendency in the development of the Froebelian principles; namely, that a much greater stress has come to be

placed upon the occupations than upon the gifts. While Froebel rendered the greatest service to education in thus transforming his principles into concrete schoolroom procedures, yet it is evident that many of these, including the songs, were appropriate only to his age and to the people with whom he was familiar, and that to keep his principles effective modification may be necessary in the present and future.

EFFECTS OF THE PSYCHOLOGICAL MOVEMENTS ON SCHOOLS. The Pestalozzian Movement. — While yet at Burgdorf, Pestalozzi's institute was frequented by numerous investigators, public men interested in education, students, even groups of students from various countries of Europe. The institute had been made a normal school, subsidized by the Swiss government. At Yverdun these conditions were intensified. Pestalozzian institutes were founded in Madrid, Naples, St. Petersburg. The monarchs of Russia, Prussia, Austria, and of the Italian states were personally interested in the reforms; and, as Pestalozzi said, any hedge schoolmaster, in order to succeed, had but to proclaim the use of Pestalozzian methods. In Switzerland itself the adoption of the new ideas was slow, owing partly to the fact that many of the cantons were under Roman Catholic control and partly to the fact that the Protestant cantons were now dominated by reactionary governments, naturally ultra-conservative, while Pestalozzi and his ideas had ever been associated with the revolutionary propaganda. After the revolutionary movement of 1830 a more liberal spirit prevailed, normal schools were established, several under the principalship of former pupils or assistants of Pestalozzi, and the new ideas were gradually but generally adopted.

Among the German states Würtemberg first fell under the new influence. During the first decade of the century Pestalozzian enthusiasts had been appointed school inspectors and principals of normal schools. Prussia followed. The

philosopher Fichte, in his address to the German people after the defeat at Jena in 1806, pointed out Pestalozzian education as the means of regeneration for the nation. The minister of education and the royal family were deeply concerned in the new educational movement. Picked young men were sent to Yverdun, and through them and the German assistants of Pestalozzi, who left Yverdun during the unfortunate disagreements among the staff, the new ideas were incorporated in the training of the teachers for the Prussian elementary schools.

Though students from France, Spain, and other nations were trained at Yverdun and though some progress was made in popularizing the new methods, the spirit of absolutism was unfavorable to their rapid development. It was not until after the revolution of 1830 that the educational reform movement made any progress in France. Then, especially under Victor Cousin, minister of education, great advance was made, notably in the training of teachers.

In England, that which received acceptance was a modified form of Pestalozzianism resulting from its combination with the prevailing monitorial and infant schools (see pp. 724–727). Consequently it was the more formal aspects of special methods rather than the real spirit of the reforms that dominated. This was chiefly through the work of the Mayos, brother and sister, who worked during the second quarter of the century.

Through England came much of the Pestalozzian influence exerted on the United States, and to this is largely due the formal and even superficial character of much of it, relating as it does or did to petty methods. However, not all of it was of this character, for the movement for the training of teachers, as well as the character of this training, were outgrowths of the Pestalozzian ideas. From the time of Neef, one of Pestalozzi's assistants, who was induced by a philanthropic American to settle in Philadelphia in 1808, sporadic

instances of the transplanting of the new ideas occurred. The translation (1835) of Cousin's *Report on the State of Public Instruction in Prussia*, which did so much for the reform of the French schools, had great influence upon educational leaders in America. From the results of the reform movement, especially as he saw it in Germany, Horace Mann drew many of his ideas and much of his inspiration. His *Seventh Annual Report*, one of the most influential educational documents ever published in America, embodies the results of his personal investigation. The most specific source of this influence, however, was what is known as the Oswego movement, begun in 1860. The ideas of this movement came indirectly from the Mayo movement in England and centered largely about the use of objects as the basis of instruction. The result was a previously unknown attention to the technique of education and to the details of special method that was the chief characteristic of normal school instruction during the generation following. Hence it comes that, for the most part, so far as principle is concerned, our schools are yet upon the Pestalozzian basis, though the special methods of applying these principles have been much improved.

One other practical effect of the Pestalozzian method on schools deserves at least mention; that is the new basis which it gave for the care of social dependents and defectives, especially paupers, semi-criminals, deaf-mutes and the blind. From Pestalozzi's institutions for the poor sprang the agricultural colonies, especially those for juvenile offenders. The industrial occupations furnished a reformatory element hitherto wanting in criminal punishment. Guided by the principles of his master, one of Pestalozzi's assistants established a school for deaf-mutes. The object method of teaching introduced hitherto unknown possibilities of developing such defective classes, while the industrial element gave them the prospect of economic independence, which was both a great gain for society and a basis for self-respect and self-

confidence hitherto denied these unfortunates. From these methods have developed the modern care and the methods of education of these classes.

The Herbartian Movement, being, as we have noted, largely one of principle, is not to be traced with any exactitude. The Herbartian propaganda, however, furthered as it has been by groups of educators devoted to the development or the popularization of his thought, is readily described. It is the former which has specific interest in the history of education, and here we must be content with indicating the extent to which Herbart's thought has entered into the educational consciousness of to-day, as that consciousness is determining, in a practical way, the work of our schools. Undoubtedly, in this sense, the Herbartian thought has entered very largely into the best work of the ordinary school, for the progressive teacher everywhere, however unconscious he may be of the ultimate origin of those influences, shares to some extent in the educational purposes and endeavors of the time.

The establishment of pedagogical seminaries and experimental or practice schools in connection with the universities was one of the more important educational works of Herbart, and at the same time the chief means by which his ideas and methods were brought to bear on the public schools. The seminaries at the Universities of Jena, Leipzig, and Halle were the more famous of these, and especially developed the Herbartian doctrines and applied them to practical work. At the first of these, Professor Stoy, later Professor Rein, have done most in applying these principles to elemenary school work through the elaboration of general and special methods. It is from this course that the American influence has proceeded. From Professor Tuiskon Ziller, at Leipzig, came the more independent development of Herbart's original doctrine, especially its elaboration as the basis of the school curriculum, of the culture epoch theory suggested by Herbart and the details of the theory of concentration of

studies also suggested in principle by Herbart. Around each center has grown up a very extensive literature. From these two universities have gone out the most widespread influences, through trained teachers and normal schools and university instructors. Through these combined means the German schools have responded to these more advanced ideas and have, so far as the character of instruction is concerned, reached a higher degree of excellence than any other schools.

In the United States the dates of publication of the Herbartian literature will indicate of how recent origin the movement is, though, to be sure, there is an extended magazine literature of somewhat earlier date. Though there were many other contributing forces, the most immediate response to this discussion was the *Report of the Committee of Fifteen on Elementary Schools* made to the National Educational Association in 1895. The aim of this report was to unify the work of the elementary school, to find a basis for that unity in a curriculum embodying some form of correlation of studies, and to prompt to better methods of instruction. A similar report five years earlier by a "Committee of Ten" aimed to perform this work of unification for secondary education, and to bring about a closer articulation of elementary, secondary, and higher education. Through such means a very general influence is being exerted on the schools of our country toward placing the character of instruction on a higher basis than that reached through the Pestalozzian movements of some half century or more ago.

The Froebelian Movement. — As has been suggested, the influence of the Froebelian principles is practically coextensive with the most important educational tendencies of the present time. An analysis of these will make evident the fundamental character of the influence of Froebel on schools. The application which Froebel himself made of his principles to the kindergarten is being made by others to more advanced

phases of education. All that can be sketched here is the spread of the kindergarten as an institution.

In Germany a number of institutions similar to that at Keilhau were established before Froebel's death. But in 1851, a year before that event, kindergartens were prohibited by the Prussian government on account of their supposed revolutionary character. The Baroness Bertha von Marenholtz-Bülow, to whom the actual popularization of the kindergarten was largely due, transferred her activities, for the time being, to England. Though this prohibition was removed after ten years, kindergartens have not yet been incorporated into the public school systems. While many private ones exist, they are not considered schools. Their teachers are not required to comply with the standards required of elementary teachers and, though they are under the supervision of school inspectors, they may not teach anything which will duplicate the work of the elementary schools. Consequently in the work of these schools there has been comparatively little development.

France best illustrates the extensive development of schools for very young children. But these infant schools — the *écoles maternelles* — are rather a development of the infant school movement than of the kindergarten. To a very slight degree do they embody the principles of Froebel — certainly not his fundamental one of self-activity. While these schools have developed for the most part since the War of 1870, and while their establishment is optional with the communes, yet in them are trained half a million children of the ages from two to six.

First introduced into England in 1854, and advocated by a number of prominent men, such as the novelist Dickens, the kindergarten was established only in a few instances and then as a private institution for the wealthier classes. Not until 1874 did the ideas of the kindergarten begin to modify the work of the infant schools (see p. 726), which by this time had

been incorporated as a part of the public school system. It was the procedure and methods rather than the principles and spirit of the kindergarten that were grafted on to this dominant institution.

The first kindergarten in the United States was established by Elizabeth Peabody in Boston in 1860, though it was not until 1868 that she succeeded in embodying the spirit and purpose of Froebel's work. A number of private kindergartens were soon established. Under the leadership of Dr. W. H. Harris and Miss Susan Blow, — among the most prominent of Froebelian exponents in this country, — the kindergarten was first made a part of the public school system in St. Louis in 1873. Since that time the movement has developed until there is scarcely a city of any size but what has incorporated the kindergarten as a component part of its public schools.

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TOPICS FOR FURTHER INVESTIGATION

1. What similarity is there discoverable between the educational ideas of Rousseau and those of Pestalozzi? Of Herbart? Of Froebel? Of Kant? Of Richter?

2. Was there a consistent scheme of psychological thought in Pestalozzi's teachings?

3. What general conclusions concerning the change in the conception of education can you form from a comparison of definitions drawn from the later eighteenth and early nineteenth century, with those formulated during the last quarter century?

4. Point out some of the errors in practice in higher stages of education resulting from applying principles formulated from a consideration of the elementary stages alone.

5. State in greater detail the educational philosophy of Kant. Of Froebel. Of Rosenkranz.

6. What criticism of Pestalozzi does Herbart offer in his *A B C of Sense Perception?*

7. What practices in your own or in any selected schoolroom are due to the influence of Pestalozzi? Of Herbart? Of Froebel?

8. What agreement do you find between the psychological theories ot Herbart as applied to education and those of Pestalozzi? Those of Froebel?

9. What did Froebel owe to Pestalozzi?

10. What contrast exists between the fundamental conception of the mind held by Herbart and that held by Froebel?

11. To what extent is the work of the elementary schools of our country now controlled by the principle formulated by Pestalozzi? By Herbart? By Froebel?

12. To what extent is it the duty of the school to give instruction in morals? To what extent is formation of character its aim?

13. To what extent can the work of instruction be made to bear directly upon conduct according to the Herbartian theory?

14. To what extent is the constructive work of the school based upon the Herbartian principle? To what extent is this justified?

15. What is the relation of interest to this process of character-forming instruction?

16. To what extent can interest be made the basis of school work?

17. What harmonization, if any, can be made between interest and the disciplinary conception of education? Is the idea of interest as the controlling principle of education incompatible with a training in will power?

18. To what extent does the importance of interest in education depend upon Herbart's doctrine of the precedence of ideas over volitions?

19. To what extent is there a conflict between individuality and character as stated by Herbart?

20. To what extent then can development of individuality be made the aim of education?

21. What is the basis of correlation of studies according to Herbart? What further reason can be assigned?

22. Which has the greater merit, the plan of concentration of studies or that of coördination of studies?

23. What is the difference in the psychological theory underlying the two? In the sociological theory?

24. Describe any particular concrete plan of concentration. Of coördination.

25. To what extent can the subject-matter of instruction be drawn directly from the life activities of the child? Illustrate in detail.

26. To what extent can the subject-matter of instruction, or the outcome of instruction, be brought to bear directly on the life of the child? Illustrate in detail.

27. To what extent did Froebel's practical experiences in his early life contribute to the formation of his educational theories?

28. What contrasts exist between the philosophy and metaphysics of Froebel and that of Herbart?

29. Trace out in any particular school or locality the respects in which the principles first embodied in kindergarten work have affected the work of the elementary grades.

30. What is the value and what the danger of symbolism in education?

31. What is the relation of religion and education according to Froebel?

32. If the relationship is so intimate as held by Froebel, how can you justify the exclusion of instruction in religion from the public schools?

33. Compare Froebel's idea of unity in school work with Herbart's idea of correlation. Which is the more practicable?

34. Compare the various descriptions of *self-activity* given by Froebel, and from them form a definition.

35. To what extent is Froebel's idea of self-activity identical with those more recently formulated? (*E.g.* in Harris's *Psychological Foundations of Education*.)

36. What various forms of self-activity can you discover among the children of any given schoolroom?

37. Why is it that play and games possess so little educational value in American life and schools?

38. What educational value is obtained from play and games in the English public schools? How is it obtained?

39. What objections are there to symbolic interpretation in nature study with the little child?

40. To what extent is the principle of constructive work embodied in the occupations found in the more advanced grades?

CHAPTER XII

THE SCIENTIFIC TENDENCY IN EDUCATION

GENERAL CHARACTERISTICS. — The movement begun by the sense-realists in the seventeenth century, which might have been termed the earlier phase of the scientific tendency, finds no break between that time and the late eighteenth or early nineteenth century. But the great development of the physical and biological sciences during this intervening period, the influence of the naturalistic tendency in exalting the importance of the phenomena of nature, and the inadequacy of the old learning and of the humanistic education as a whole, gave unprecedented importance to this tendency from the opening of the nineteenth century. For a considerable portion of the century an open conflict was waged between the advocates of the old, staking their all upon the disciplinary value of the classics (Chapter IX), and the advocates of the new scientific learning, refusing to permit the possibility of any compromise of view. The scientific tendency possessed two general characteristics: As a contrast to the prevailing disciplinary view that the value of the subject lay in the process of acquiring it, the scientific conception placed all emphasis upon the importance of the content. This position has been previously described under sense-realism. Knowledge of natural phenomena was conceived to be the source of all important truth and of all social progress. Hence it was for the interest of the individual, from both the philosophical and the psychological point of view, and for the interest of society that the new subject-matter

should replace the old in schools. The most characteristic features of educational discussions of the latter half of the nineteenth century have been those relating to the curriculum. The other feature, also mentioned in Chapter VIII, in recent times of much more importance on account of the better organization of the natural sciences, was the value of the inductive method in instruction in every subject.

A survey of the development of the physical and biological sciences from the sixteenth century to the present time will be most helpful in throwing light upon the development of educational thought and practices. Such a survey cannot be made in a brief space, but the material can be gleaned from the various histories of science.

EDUCATION FROM THE POINT OF VIEW OF THE NATURAL SCIENTISTS. — We have previously seen that the sense-realists would base education largely upon a study of the phenomena of nature and would have even the languages taught through the study of objects; that the naturalists of the Rousseau type held that only the education which came from natural phenomena and from the natural development of forces in human nature was good; and that the practical influence of Pestalozzianism was little more than an insistence upon object teaching in the schools, with the resulting training in sense-perception. These forces combine in varying proportions with the new force that comes from the development of scientific knowledge and the perfecting of the organization of the various natural sciences in demanding a wholly unprecedented attention to the sciences in education. It is not until a subject of human interest or aspect of human experience receives a definite logical formulation that it can demand a place in the instruction of the school. The perfection of organization of grammatical, linguistic, and mathematical studies made it difficult to effect any change in the organization of the school curriculum. There resulted

a prolonged struggle against the prevailing disciplinary or classical-mathematical education for the recognition of the sciences. This produced a most extensive literature, which can be noticed here only by the discussion of two or three of the most notable movements and the work of two of the most notable representatives.

CULTURE DEMANDED BY MODERN LIFE. — Among the Teutonic peoples, as has been shown in the preceding chapter, the opposition to the dominant disciplinary education was based upon psychological and philosophical grounds, and consequently centered more around the question of method. Among the English-speaking peoples the opposition was based largely upon practical and "common-sense" grounds, and centered more around the question of subject-matter. Hence the dominant, though not exclusive, characteristic of the continental educational movement was psychological; that of the English race, at least in the character of the new subject-matter demanded, was scientific. Several decades before the educational writings of Spencer and Huxley appeared, the conflict between the dominant disciplinary education and the scientific education had begun.

The earlier phase of the movement, that of the early half of the nineteenth century, was not on the highest level, for it was led by enthusiastic and well-designing reformers rather than by men of any broad scientific reputation or knowledge such as later appeared with Spencer and Huxley, or by men who had any such fundamental grasp of the educational problem as had Herbart or Froebel. Most prominent among these was George Combe (1788–1858), who represented a considerable body of influential followers and headed a movement of practical reform of great influence. Discredited then by his advocacy of non-sectarian education, termed secular education, which to those generations meant a non-religious and hence wholly inadequate education, these men

are now discredited by their belief in the science of phrenology as the basis of educational practices.

Two general lines of argument were followed by these earlier advocates of science. First, the distinction which exists between "instrumental" knowledge and positive knowledge; between that which furnished the means to gain further knowledge and that which had intrinsic worth for the individual. The former included all the linguistic and much of the mathematical knowledge; thus languages, grammar, writing, much of arithmetic, algebra, and all of pure mathematics merely served the purpose of providing means for obtaining a knowledge of the physical, intellectual, moral, social, political, and religious world around us, which was in itself of great value to the individual in regulating his life and promoting his own and the social welfare. They considered that the dominant disciplinary education of their day directed all attention to subjects that were merely instruments and hence never reached the subjects that really gave one the knowledge necessary to make life successful, useful, and happy.

The second line of argument considered education from much the same point as did the disciplinarians, and in this respect possessed the same relationship to the dominant education as did a popular phase, the psychological tendency. Education should not only give to the individual such knowledge as would enable him successfully and intelligently to perform the various duties of life, but it should give the best possible training to all of his mental faculties in order that this great end might be attained. The old faculty conception of the mind prevailed, and with this the idea that it was a function of education to train these faculties. As one of these early scientists and psychologists states the problem, the work of education is the "strengthening and enlivening, by means of exercise of all the faculties of mind and body composing the human being, to the best condition for exercising their func-

tions on their proper objects." This training of the faculties, which constituted all of education to the disciplinarian and was the phase of education to which the psychologist devoted the greatest attention, though in a manner radically different from that of the disciplinarians, became to the scientist subordinate. In other words, for these latter the training came as a by-product of the process of gaining the knowledge that was necessary as an instrument or that had positive value in itself.

The same general arguments appear in popular form in the latter half of the century. Youmans in the essay on *Mental Discipline in Education* sums up the problem thus:—

"With the growing perception of the relation between human thought and human life it will be seen that by far the most priceless of all things is mental power; while one of the highest offices of education must be strictly to economize and wisely to expend it. Science made the basis of culture will accomplish this result. . . . The ideal of the higher education . . . is a scheme of study, which, while it represents the present state of knowledge and affords a varied cultivation and a harmonious discipline, shall at the same time best prepare for the reasonable work of life."

A generation earlier similar demands were made and similar principles of relation were formulated by Combe and his confrères, and embodied before the middle of the century in "the secular schools." According to these early scientists, the subjects which demand first consideration are those which treat of man's bodily constitution, anatomy and physiology. Second, come those which treat of man's mental constitution. Third, come the physical sciences,—those that treat of man's relation to external nature. Fourth, are those that treat of man's relations to his fellow-men,—the moral, social, and political sciences. Finally, comes instruction in religion.

Thus, according to the scientific view, the knowledge of value in education is that demanded by modern life. In

regard to subject-matter in education the scientific view agrees with the sociological. In regard to the foundation of method it agrees with the psychological; for the thought common to all this scientific discussion is that training or discipline is not developed through any special activity, but that it comes through the activity that is valued in itself.

In their more recent form the views of those who solve the problems of education from the point of view of modern science are in advance of the arguments stated above, or at least are stated in somewhat different terms. These views do not differ materially from such as are expressed by those who approach the problem from the social significance of education, and may be summarized as follows: —

The elements which now enter into culture are very different from those of a few hundred years ago. New literatures have developed to vie with those of the Greeks and Romans; the arts have been perfected beyond the dreams of the imagination of those ages; the new sciences have been created and there now exists a knowledge of nature and of her forces that in comparison with the interpretation of preceding centuries seems most exhaustive and positive. Consequently it is necessary to define anew the liberal education. Studies are no longer considered to be liberal in proportion to their remoteness from practical bearing, but, on the contrary, in proportion to their direct relationship to life. A liberal education is not one of no practical bearing, but one which fits a man so well for his profession, for his life as a citizen, and for all of his activities in life, that he is very much broader than that profession, seeing broadly the import of his actions in his life in institutions. Civil, mechanical, chemical engineering, the practical application of any of the sciences may become learned professions, and the preparation for these may in itself offer a liberal education, if the individual is so equipped with a knowledge of the fundamental sciences that he is perfectly "free" through his mastery

of his subject, and "free" in the life that grows out from and is based upon that profession. Such an education must contain more than mere rudiments or the technical instruction necessary for a practitioner in these arts; it must include a thorough mastery of them. For such a career the study of the French and German languages, contributing as these literatures may in the broadest manner to one's success by opening to him the experience of other peoples of advanced civilization, is far more liberal than the ordinary instruction in Greek or Latin would be. Similarly the social, political, and economic sciences, contributing as they do a knowledge of the complex activities, interests, and forces of modern social life, are liberal in the sense that the old disciplinary use of mathematics could not be. True, a man in such lines of scientific activity would need a most thorough course in mathematics, but for an entirely different purpose from that held by the disciplinarians, with a different selection of the branches of mathematics and with considerable change in method.

A liberal education is one containing the best culture material of the life for which it is designed to prepare; and it is liberal only to the extent that it includes these materials. The natural sciences most largely contributed to the culture of the nineteenth century. In a similar way the social sciences are now being developed, with much of inspiration, purpose, and method borrowed from the natural sciences. Every aspect of life and thought of the present age has been modified and given its tone and color by the development of the natural sciences. Therefore, an education that constitutes a liberal preparation for present life must include a large element of these studies.

But since it is impossible that every youth to be educated should master even the rudiments of all these sciences in addition to much of the old material, the representatives of this view of education have usually contented themselves with

demanding freedom of choice in the selection of studies and the recognition by educational authorities of the equivalence in value of the sciences in the course of study. In that this demand for the freedom of selection of subjects is but another interpretation of the education of interest, the scientific tendency here agrees with the psychological.

With the prevalence of such a conception of a liberal education and such an organization of its subjects, it will be possible for the ordinary practitioner in any of the professions to combine a liberal with a professional or technical education. So long as these two types of education are kept so entirely distinct that the person who has the one cannot have the other, and so long as the liberal education is restricted to the mastery of a few subjects to which the majority of men who enter the intellectual callings in life cannot devote time, it must follow that the great majority, even of those who lead and sustain the life of a community, will continue to be denied the privileges of a liberal education.

In England the men who have contributed to the establishment of this view, chief among whom were Spencer and Huxley, have labored for the most part outside of educational institutions; in America the most prominent of such leaders, notably President Eliot of Harvard, have been in connection with universities.

THE THEORY OF EDUCATION FORMULATED BY THE NATURAL SCIENTISTS. — While there were numerous writers of minor importance who continued the line of educational thought from the time of the sense-realists, it is not until the middle of the nineteenth century, when the organization of the natural sciences had become perfected, that a modern presentation of their educational claims could be made. The first of these, and yet the most influential, at least for Anglo-Saxon thought, was that by Herbert Spencer (1820-1903).

"**Education, Intellectual, Moral, and Physical,**" by Herbert Spencer, was issued in 1860. The fundamental characteristic of the scientific tendency is revealed early in the treatise in his discussion of the importance of the selection of subjects of study as the vital theory in education.

"If there needs any further evidence of the rude, undeveloped character of our education, we have it in the fact that the comparative worths of different kinds of knowledge have been as yet scarcely even discussed — much less discussed in a methodic way with definite results. Not only is it that no standard of relative values has yet been agreed upon; but the existence of any such standard has not been conceived in any clear manner. And not only is it that the existence of any such standard has not been clearly conceived; but the need for it seems to have been scarcely even felt. Men read books on this topic and attend lectures on that; decide that their children shall be instructed in these branches of knowledge and shall not be instructed in those; and all under the guidance of mere custom, or liking or prejudice; without ever considering the enormous importance of determining in some rational way what things are really most worth learning. It is true that in all circles we have occasional remarks on the importance of this or the other order of information. But whether the degree of its importance justifies the expenditure of the time needed to acquire it; and whether there are not things of more importance to which the time might be better devoted; are queries which, if raised at all, are disposed of quite summarily, according to personal predilections. It is true, also, that from time to time we hear revived the standing controversy respecting the comparative merits of classics and mathematics. Not only, however, is this controversy carried on in an empirical manner, with no reference to an ascertained criterion, but the question at issue is totally insignificant when compared with the general question of which it is part. To suppose that deciding whether a mathematical or a classical education is the best, is deciding what is the proper *curriculum*, is much the same thing as to suppose that the whole of dietetics lies in determining whether or not bread is more nutritive than potatoes."

The new purpose, basis, and method of education empha sized by Bacon are here again clearly presented. The purpose of education is defined as preparation for complete living; and this in turn is judged largely from the point of view of the welfare of the individual, though of the individual as living in fully developed society. Rousseau's influence is evident, but the thought appears in a radically modified form. "How to live? — that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is — the right ruling of conduct in all directions under all circumstances. . . . To prepare us for complete living is the function which education has to discharge; and the only rational mode of judging of any educational course is to judge in what degree it discharges such function."

This preparation for complete living consists, first, in the acquisition of knowledge that is best adapted for the development of individual and social life; and, secondly, in the development of the power to use this knowledge. What knowledge is of most worth becomes, as with Rousseau and with Bacon, the chief question of educational importance. To this question Spencer gives this definite categorical answer. Knowledge which leads directly to self-preservation, such as the sciences of physiology, hygiene, physics, and chemistry, is of first importance. Knowledge which leads indirectly to self-preservation through the sciences and arts relating to the securing of food, clothing, and shelter comes next. Third, in order of importance, is the knowledge of rearing of offspring, which, in strange contrast with the attention given to the breeding of animals and the training required of a builder of bridges or a maker of shoes, is wholly neglected. On the other hand, any parent or teacher is presumed to be capable of bringing up a child without any preparation. Fourth in order is the knowledge of social and

political life such as shall make one an intelligent citizen and neighbor. Last of all comes the knowledge of literature, art, æsthetics, including foreign languages and literature, which, since occupying the leisure of life, should also occupy the leisure of education. Thus the natural sciences demanded by the first three needs take precedence over the social sciences demanded by the fourth need and over the "liberal" or "culture" subjects, at that time the basis of all school work. While this constitutes a negation of the Renaissance emphasis upon literature and languages, it is not, as with Rousseau, a denial of the value of knowledge; but, on the contrary, an altogether new emphasis upon that value.

Since Spencer is the one English writer on the subject of education during the nineteenth century that has exerted any particular influence and received any particular attention, many criticisms not altogether valid are passed upon his ideas. A statement of these objections and of the points wherein they err is desirable, in order to understand clearly Spencer's position.

The most frequent objection is made to its utilitarian character, — to its somewhat radical application of Rousseau's test, "Of what use?" While this test led to a rejection of all that was held most dear in traditional educational work, especially of the idea with strong classical support that a subject lost its educational value as it gained practical value, yet the utilitarianism of the naturalists and the scientists was almost identical with the "practical" of Kant and the "æsthetic" of Herbart, or what is commonly meant by the term "moral." That which affects conduct directly, improves life, benefits man individually or in society, is "utilitarian." It is true that Spencer sacrifices some of the amenities of life, but chiefly that he may gain for the neglected many what hitherto has been the perquisite of the privileged few. It is said that Spencer sacrifices that which is higher in life — its culture — for that which is lower — its practical advantage. On the con-

trary, he emphasizes the importance of the cultural elements in an entirely new way; for his argument is that all these phases of knowledge should be emphasized and that every individual should be permitted some attainment or acquisition in each. In place of an educational and social scheme which gave to a limited few the education of a life of leisure without any of the practically useful, and to others an education of the most meager character in the dullest routine of life, he demands such a readjustment as shall give to every individual an education including some of all these elements emphasized in the order mentioned.

Another criticism is found in the objection, raised from the pedagogical point of view, that education is not a preparation for life, but that it is life. To a certain extent this objection is a mere juggling with words. So far as valid, it is that Spencer overestimated the value of knowledge as a preparation. This is characteristic of the entire scientific tendency. Yet this error is combined with a truer conception of the nature of knowledge than was the case in previous educational theories where the same defect existed. On the other hand, by way of justification, it must be recognized that his position is but a reaction against the over-emphasis on method given by the disciplinarians and, in a quite different way, by those representing the psychological tendency. It will be recognized that, on this point, the scientific tendency is a more radical reaction against the disciplinary view of education than was the psychological.

In answer to the second question, that is, how to develop the power to use the knowledge, Spencer is far less specific and direct. His answer, which is a begging of the question, is that the acquisition of the knowledge of most worth will give the power to use it, otherwise there would be a violation of the harmony and economy of nature. The juggling with the term "nature" results in this *obiter dictum*, which is in curious contradiction to the process of reasoning recommended

by the scientist. So far as the individual is concerned, nature is not economical but notoriously prodigal. More specifically he answers that the study of the sciences will result in a better training in memory, in the use of the understanding and of the judgment. But in the argument he seems to be wholly oblivious of the fact that linguistic training offers anything more than a training in memory.

In the essay on *Intellectual Education* he discusses more fully the question of method, but adds nothing to the ideas of those who attempted to base education upon psychology. Of these he seems to be conversant with only one, Pestalozzi. Spencer's discussions consist only in an elaboration of a number of Pestalozzi's principles, such as that education should proceed from the simple to the complex, from the concrete to the abstract, from empirical to rational, and should be pleasurable; he adds nothing of value to them. The one principle, previously noted under Rousseau, that all moral training should result from allowing the child to suffer the natural consequences of his own action, is emphasized as the essence of moral education.

It will be seen that the one great contribution of Spencer was to reëmphasize the three points first defined by Bacon, to state these in terms of modern science and of modern educational thought, and to put the arguments in a form that would appeal to the nineteenth-century thought.

Thomas H. Huxley (1825–1895) accomplished more for the actual extension of education in the natural sciences than any other Englishman. As member of the first London School Board, as university professor, as lecturer on educational and scientific topics, and as a writer, he did more in a practical way than Spencer through his one famous treatise. Though Huxley's writings or addresses on education are very numerous, his main points are but a reëmphasis of those made by Spencer, Bacon, and others, put in a somewhat different form. The practical purpose, the realistic

basis, the criticism of the prevailing literary and classical education, is given in the following trenchant passage:—

"Now let us pause to consider this wonderful state of affairs; for the time will come when Englishmen will quote it as the stock example of the stolid stupidity of their ancestors in the nineteenth century. The most thoroughly commercial people, the greatest voluntary wanderers and colonists the world has ever seen, are precisely the middle classes of this country. If there be a people which has been busy making history on the great scale for the last three hundred years,—and the most profoundly interesting history,—history which, if it happened to be that of Greece or Rome, we should study with avidity—it is the English. If there be a people which, during the same period, has developed a remarkable literature, it is our own. If there be a nation whose prosperity depends absolutely and wholly upon their mastery over the forces of nature, upon their intelligent apprehension of, and obedience to, the laws of creation, and distribution of wealth, and of the stable equilibrium of the forces of society, it is precisely this nation. And yet this is what these wonderful people tell their sons: 'At the cost of from one to two thousand pounds of our hard-earned money, we devote twelve of the most precious years of your lives to school. There you shall toil, or be supposed to toil; but there you shall not learn one single thing of all those you will most want to know directly you leave school and enter upon the practical business life. You will in all probability go into business, but you shall not know where, or how, any article of commerce is produced, or the difference between an export or an import, or the meaning of the word "capital." You will very likely settle in a colony, but you shall not know whether Tasmania is part of New South Wales, or *vice versa*. . . . Very probably you may become a manufacturer, but you shall not be provided with the means of understanding the working of one of your own steam engines or the nature of the raw products you employ; and, when you are asked to buy a patent, you shall not have the slightest means of judging whether the inventor is an impostor who is contravening the elementary principles of science or a man who will make you as rich as Crœsus. You will very likely get into the House of Commons. You will have to

take your share in making laws which may prove a blessing or a curse to millions of men. But you shall not hear one word respecting the political organization of your country; the meaning of the controversy between free traders and protectionists shall never have been mentioned to you; you shall not so much as know that there are such things as economical laws. The mental power which will be of most importance in your daily life will be the power of seeing things as they are without regard to authority; and of drawing accurate general conclusions from particular facts. But at school and at college you shall know of no source of truth but authority; nor exercise your reasoning faculty upon anything but deduction from that which is laid down by authority. You will have to weary your soul with work, and many a time eat your bread in sorrow and in bitterness, and you shall not have learned to take refuge in the great source of pleasure without alloy, the serene resting place for worn human nature, — the world of art.' Said I not rightly that we are a wonderful people? I am quite prepared to allow that education entirely devoted to these omitted subjects might not be completely liberal education. But is an education which ignores them all a liberal education? Nay, is it too much to say that the education which should embrace these subjects and no others would be a real education, though an incomplete one; while an education which omits them is really not an education at all, but a more or less useful course of intellectual gymnastics?"

Huxley did not admit that the prevailing education was literary, for the study of grammar and language structure is scientific rather than literary. The schoolboy never reached the literary stage, and the training he got in the languages was very poor science as to its method, and in content of no value at all. The argument that universal and practical education would be of no avail since neither poverty, crime, nor misery had decreased with education, he answers by saying that this fact simply shows the uselessness of the old education, without revealing any theory about a truer educational procedure.

The purpose and conception of the process of education is stated in Huxley's notable description of the product of a liberal education.

"That man, I think, has had a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength, and in smooth working order; ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great and fundamental truths of nature, and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or of art, to hate all vileness and to respect others as himself. Such an one, and no other, I conceive has had a liberal education; for he is, as completely as a man can be, in harmony with nature."

SCIENCE IN THE CURRICULUM. In the Universities and Colleges. — The scientific study of nature was fostered in the earlier centuries of the modern era more by *academies of science*, beginning with that of Naples in 1560, than by the universities. While the scientific spirit was embodied in the University of Halle from its foundations, it was in these academies and *real*-schools that science received its chief cultivation. In France the beginnings of higher instruction in science of a modern type were also outside of the universities. The Republic, in 1794, founded the normal school at Paris, where the most famous French scientists, including Laplace and Lagrange, gave instruction. In England the study of mathematical and physical sciences in the universities had been given an impetus by Newton, but there was no study of the biological science and no use of scientific method by students until much later. Modern scientific teaching in the universities, together with the experimental use of laboratories

by students, may be said to have been begun about 1825 by Liebig at Giessen. In England scientific instruction developed altogether independently of the universities; the College of Chemistry was founded in 1845, and the School of Mines was established by the government in 1851. The Department of Science and Art, founded in 1853, also fostered advanced scientific study. The royal schools above mentioned, together with the normal training classes started in 1868, were gradually brought together, and in 1890 were reorganized under the title of the Royal College of Science. Engineering schools and science schools in connection with the army and navy had already been instituted shortly after the middle of the century.

In 1860 the Faculty of Science was created in the University of London, and the degrees of doctor and bachelor of science were first given. It was not until 1869 that the courses in science were established in any number in Oxford and Cambridge. While there has been rapid development recently, and while a large Carnegie fund has been devoted to fostering science in the Scottish universities, it is generally recognized that Great Britain is almost a century behind the continent in the teaching of science.

In the United States. — Science appeared in the curriculum of American colleges in the earliest days. Astronomy appeared in President Dunster's program of studies at Harvard in 1642; and in the other colleges in the order of their appearance. In this same program it was specified that the seniors shall study "the nature of plants" for one hour on Saturday afternoons during the summer months. But no further mention of botany appears until the middle of the eighteenth century. Physics, or natural philosophy, is the second science in the order of appearance. It was given place at Harvard in 1690, and may have appeared earlier. Very early in the eighteenth century it appeared at Yale also. By the middle of the eighteenth century geography and the use

of globes, probably incorporated under astronomy in the earlier colleges, appeared at Princeton (founded 1746) along with astronomy and physics. "Geographical grammar," along with natural philosophy and astronomy, constituted the sciences in the Harvard curriculum of 1742–1743.

It was with the founding of two new institutions, King's College, now Columbia, in 1754, and the University of Pennsylvania, in 1755 (or 1751 as an academy), that an entirely new tendency was begun. Neither of these colleges was under denominational control; and though, as a matter of course, the classical languages yet occupied the central place, divinity as an important study had disappeared from the curriculum. In the advertisement for King's College in a New York paper, May 1, 1754, the following is the fifth section: —

"And, *lastly*, a *serious*, *virtuous*, and industrious Course of Life being first provided for, it is further the Design of this College, to instruct and perfect the Youth in the Learned Languages, and in the Arts of *reasoning* exactly and *writing* correctly, and *speaking* eloquently; and in the *Arts* of *numbering* and *measuring*; of *Surveying* and *Navigation*, of *Geography* and *History*, of *Husbandry*, *Commerce*, and *Government*, and in the knowledge of *all Nature*, in the *Heavens* above us, and in the *Air*, *Water*, and *Earth* around us, and in the various kinds of *Meteors*, *Stones*, *Mines*, and *Minerals*, *Plants*, and *Animals*, and of everything *useful* for the Comfort, the Convenience, and Elegance of Life, in the chief *Manufactures* relating to any of these things, and finally, to lead them from the Study of Nature to the Knowledge of themselves, and of the God of Nature, and their Duty to him, themselves and one another, and every Thing that can contribute to their true Happiness, both here and hereafter."

This scheme was actually incorporated into a curriculum by President Johnson, but with a change of presidents in 1762 a more restricted curriculum prevailed and no marked advance was made until after the Revolution. In the cur

riculum of 1756 in the University of Pennsylvania, natural philosophy, a great range of applied mathematics, astronomy, natural history, chemistry, and agriculture appeared. Chemistry also appeared at Harvard in 1760. In 1779, with the inauguration of James Madison as President of William and Mary, but chiefly owing to the influence of Thomas Jefferson, the general plan of King's and of Pennsylvania was carried to that College; chemistry and medicine were introduced, the chair of divinity was abolished, and a curriculum composed largely of the natural, political, and social sciences was substituted for the narrow Oxford curriculum previously in vogue. At Yale, under President Stiles, after the Revolution, chemistry, botany, and zoölogy were introduced, Hebrew was made elective and French offered as a substitute. In 1787 a course in natural history was offered "to those that obtained permission of parents or of guardians."

The opening of courses in medicine in these colleges, first at King's in 1767, at Harvard in 1782, and at Pennsylvania in 1791, was one other important aspect of the development of the study of the sciences. In 1792 a faculty of physic, consisting of a dean and seven professors, complementary to the faculty of languages, was established at Columbia.

In 1825, at Harvard, mechanics and optics appeared as separate courses; mineralogy and geology were added to astronomy, chemistry, and natural history; electricity and magnetism first appeared as separate subjects; the philosophy of natural history was announced as a separate course and special lectures in physiology were given. Mineralogy, geology, and botany appeared at Princeton in 1830, as had chemistry in 1803 and natural history still earlier. To natural philosophy, chemistry, astronomy, and geography, the subjects of mineralogy and geology were added at Yale in 1824. Electricity appeared as a separate course in the University of Pennsylvania in 1811.

So far as mentioned, these scientific subjects were all incor-

porated as required studies, and the disciplinary conception of education prevailed and was distinctly enunciated by various faculties. The conception of interest, or of the capacities and desires of the individual, began to be recognized before the middle of the nineteenth century. The University of Virginia was established in 1825 upon the basis of the complete freedom of choice by the student. Advocacy of the system at Harvard began in 1825, and considerable freedom was allowed students from about 1845. Not until 1869 was the system of complete freedom in election of studies established, with the administration of President Eliot. Earlier than this Presidents Wayland of Brown and Nott of Union had stood for this broader conception of the college course. With the elective system came the general ascendency of the scientific subjects. The establishment of Cornell University, in 1867, upon a basis of complete freedom with a strong bias in favor of the scientific and technical subjects, completed this phase of the movement toward the general introduction of the sciences into higher education. Meanwhile, in Harvard (1847) and Yale (1860), special schools of science had been established.

The earliest scientific school of higher grade was the Rensselaer Polytechnic Institute, founded in 1824 at Troy, New York. The advanced character of the scientific work can be judged from this direction to the board of trustees: "These [the students] are not to be taught by seeing experiments and hearing lectures according to the usual method. But they are to lecture and experiment by turn, under the immediate direction of a professor or competent assistant. Thus by a term of labor, like apprentices to a trade, they are to become operative chemists." The Morrill land grant of 1862, by which Congress appropriated thirteen million acres of land for maintenance in each state of a college devoted chiefly to those branches of learning related to agriculture and mechanic arts, though "without excluding other scientific

and classical studies," developed an entirely new type of scientific school. These are the schools of applied science found either in connection with state universities or as independent institutions in almost every state in the Union.

Science in the Secondary Schools. — *In Germany* the introduction of science through the sense-realistic movement has been noted. Through the influence of the philanthropinists and of the materialistic thought on the one hand, and the *new humanistic* movement on the other, the rigid classical conception of education was modified, and in 1816 science was introduced into the Prussian gymnasium, and at a somewhat later period into those of the Southern German states. Though but two hours per week were allotted to physics and natural history, — and even less in the southern or Catholic regions, — science retained its hold upon the classical schools, despite the reactionary movement that took place between the Congress of Vienna and 1848. In 1855 two types of *real*-schools were recognized: one with the full nine-year course with Latin yet represented in every year; and the *real*-school of the second grade, with its curriculum determined largely by local authorities. In 1882 these became the *Realgymnasium*, the *Oberrealschule* of nine years' course without Latin, and the *real-schule* of a less number of years. In these schools twice as much time is given to natural history, physics, chemistry, and mineralogy as in the *gymnasien* (thirty-six week-hours for the nine years in the *real-schulen*), and a much greater emphasis put upon mathematics, geography, and drawing. Allied to the *real-schulen* — scientific or English high schools we would call them — are the technical schools, which have achieved such practical success and such perfection of method and organization during the present generation. These began with the technical schools of Nuremberg, organized in 1823. While technical subjects are most emphasized, the scientific and mathematical subjects as the bases for the work in the applied sciences are made

prominent. Such schools have assumed prominence and numbers since the middle of the century (p. 742).

In England, as in our own country, the introduction of scientific subjects into the secondary curriculum is identical with the *academy* movement. The importance of the academies declined during the eighteenth century, and in the numerous "public schools" and those not on foundations but of purely private character little was done to continue any interest in the study of the sciences. With the second quarter of the nineteenth century the popular controversy between the sciences and the classics in secondary education began and was continued with enthusiasm for many years. Headed by George Combe, this controversy first concerned the schools of Edinburgh and Glasgow and, about 1835, led to the establishment of secondary schools that laid much stress upon the sciences in opposition to the flourishing classical high schools and institutes. In 1849 other "secular schools," as the type now came to be called, were founded and a society fostering such schools was established. The controversy initiated (p. 679) did much to hasten the first steps toward the reform of schools during the decades of the sixties and seventies. Up to this time no change had been made in the attitude of the "public schools" toward the sciences.

In 1856, in answer to the expressed opinion of the University Commissions for Winchester, "that good elementary instruction in physical science is essential in the case of many boys, desirable in all cases, and perfectly compatible with a first-rate classical education," that college instituted a course "of ten or twelve lectures — delivered once a year." After ten years this was extended into a series of lectures continuing throughout the year with appropriate examinations. After the public school acts of Parliament in 1868, which revealed that there was an almost total absence of study of the sciences in the five hundred and seventy-two endowed secondary schools, a "modern side" came to be organized in

all of the more prominent of these schools, though tardily in some and with minor attention and unconcealed disparagement in all. Natural history and physics were included along with modern languages and history in this modern side. While this condition has much improved, the serious attention given to instruction in the sciences is fostered by the Department for Science and Art (in 1898 combined with the Department of Education). This department was created in 1853, though appropriations had been made by Parliament from 1836. Little of importance was done until after 1859. Schools or classes in which instruction is afforded in physics, zoölogy, chemistry, geology, mineralogy, botany, as well as in a variety of practical subjects, are now granted a subvention. In this manner more than ten thousand classes are assisted at the present time. In 1901 there were seventy-eight independent "science schools" of secondary rank.

In America the academies were the home of instruction in the sciences from the first (p. 500). Astronomy and "natural philosophy" were naturally the ones most emphasized, since they were those most systematically formulated during the eighteenth century. Geography was almost universally taught in these schools and chemistry frequently. After the publication of the first American geography by Morse in 1784, this study acquired a firmer hold than ever upon the academies. A list of text-books published in the United States in 1804 includes six geographies as the only scientific text-book besides those of applied mathematics, such as surveying and navigation. By 1832 there were 39 geographies, 11 astronomies, 6 botanies, 5 chemistries, 6 natural philosophies. Most of these were designed for use in academies. It is needless to add that all the sciences were studied from books, though resort was frequently made for illustration to experimentation with apparatus. The first unmistakable evidence that any of these subjects composed a vital part of the secondary curriculum was the inclusion of geography

among the college entrance requirements by Harvard in 1807. No other science followed as an entrance requirement until physical geography was added in 1870, and physics two years later.

With the development of the early high schools, the same emphasis upon the sciences was continued. The earliest high school, that of Boston, founded in 1821, included geography in the first year; geometry, trigonometry, navigation, and surveying, in the second; and natural philosophy and astronomy in the third. All of the earlier schools of this type, whether called free academies, city colleges, English classical schools, union schools, or high schools, continued the same attitude toward the sciences. After 1870 the character of these schools was vastly improved, their number increased, and the work in science was expanded to include physics, chemistry, botany, and zoölogy, in well-organized courses. Until quite recently, however, the policy of giving numerous general courses of superficial character prevailed over that of a more substantial mastery by more thorough experimental methods of a comparatively few subjects. While the curriculum of the high school gives an important place to the sciences, the institution itself was an outgrowth of the sociological tendency to be noted later.

Science in the Elementary School. — *In Germany* the influence of the naturalistic tendency under Basedow has been mentioned. It was the Pestalozzian movement, introduced into Prussia in 1810, and into other German states later, that made such elementary science studies general. Geometry was incorporated into the curriculum of the upper grades and drawing throughout the course. Geography, taught by inductive method and introducing much general information of scientific character, was included throughout. The study of science, including elementary physics, physiology, and natural history that dealt with the phenomena of botany and zoölogy in an elementary scientific way, was introduced into the middle

and upper grades. In most of the grades these sciences were allowed two hours a week, though in some of the upper grades four. This remains the situation to the present time. For almost a century, then, science has been recognized as one of the subjects of the elementary schools throughout almost the whole of the German-speaking countries.

In England. — The condition of elementary schools was so chaotic until the establishment of board, or public, schools in 1870, that it is difficult to speak of general conditions. The attitude of the Department of Science and Art in fostering science study, especially in giving encouragement to drawing and recently to manual training, has been mentioned. The establishment of numerous organized science schools since 1872 by the same department has also been referred to. Until 1900 the "three R's" were the only required studies in the primary schools. The teaching of other subjects was controlled by the governmental grants given for results in various subjects. The most popular of these supplementary subjects were geography and elementary science. These have now been included in the compulsory course.

In the United States. — The question concerning the proper subjects for the elementary curriculum hardly existed before the middle of the nineteenth century. The "three R's — reading, writing, and arithmetic," with spelling and grammar, were without any rivals whatever. In fact, the average school included only reading, spelling, and English grammar, while those of a superior sort added writing, arithmetic, geography, and history.[1]

The first subject of scientific character that made any headway in its claims for representation was geography. By 1832, thirty-nine geographies and atlases, many of them for elementary school work, had been published in the United States. The second subject of scientific nature to find entrance into the elementary curriculum was physiology.

[1] Hinsdale, *Horace Mann and the Common School Revival*, Ch. I.

This was especially the case in the New England region, and was due to the advocacy of Horace Mann, who, from 1837, continued his propaganda in favor of this subject. The first English text-book on physiology of elementary character appeared in 1837; its introduction into elementary schools followed slowly, and in 1850 the state legislature of Massachusetts made compulsory the teaching of the subject in the elementary schools. Object teaching, and along with this the study of simple phenomena of nature, was introduced through the Pestalozzian movement (pp. 620–621). Nature study has been a more recent outgrowth of this and other influences.

INFLUENCE OF SCIENCE ON EDUCATIONAL METHOD. — The detailed evidence containing these influences is suggested in the previous section on science in the curriculum and in the chapter on the psychological tendency. The application of psychological method is the application of science to education. Yet one or two general considerations need to be suggested to assist the student in constructing this résumé.

Scientific method has been worked out objectively by a long line of investigators, from Copernicus, Galileo, and Kepler, through Newton to the present time. Since the time of these early scientists it has been applied, widely and thoroughly, to every field of investigation and every phase of experience. Formulated first on the subjective side by Descartes and on the objective side by Bacon, every investigator has but made more evident its philosophical as well as its positive formulation.

The earlier application of this method to education in the Baconian period has been discussed. Its more general application, though in somewhat empirical form and in a wholly tentative manner in the Pestalozzian movement, has also been mentioned. The development of the scientific method in its application to education during recent times can be traced

along two lines. The first of these is in the formulation of specific methods of instruction more in accord with the principles of psychology than are the traditional ones of the past. The second of these is through the improvement in form, content, and arrangement of material presented in text-books.

Probably little has been added in general principles, or at least such traditions are slowly made. The great task, after the scientific attitude has been accepted by teachers, is to translate principles into precepts and precepts into practice. The more general professional training is making such progress possible; the constant revision and improvement in text-books is furnishing the means. The result is a constantly improving standard of efficiency and thoroughness in teaching. That with this improvement in method there is often much that savors of the chicanery of the mountebank, or more often of the unbalanced enthusiasm of the untrained practitioner, is evidenced by the many fads and fashions to which the educational world is subject. Beneath it all one has but to study the advance made in the teaching of any one particular subject to be convinced that great progress is being made in the application of scientific method to education. Each part of education — elementary, secondary, higher — has its own history in this respect, as, indeed, has each subject. This advance has been sketched for subject-matter. To follow this for any particular subject, by means of text-books and schoolroom methods, will be a most profitable task for the student, but one that cannot be undertaken here.

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In general, the literature on this chapter is to be found in periodical publications, to which access may be had through Poole's *Index*.

TOPICS FOR FURTHER INVESTIGATION

1. Give an outline of the development of any one modern science and trace its connection with education: (*a*) To what extent was it developed through the work of educational institutions? (*b*) When was the subject introduced into school text-books (readers, etc.)? (*c*) When and in what type of institutions was it introduced as a subject of study? (*d*) What influence, if it can be traced, did it exert on the general character of the intellectual life and the general conception of education?

2. What were the views held by any one of the prominent natural scientists that wrote upon the subject of education, — Franklin, Priestly, Agassiz, etc., — and to what extent were these views determined by their scientific ideas?

3. To what extent was the development of the natural sciences an outgrowth of the work of educational institutions?

4. To what extent can this be traced in any one institution; *e.g.* University of Halle, University of Cambridge, University of Pennsylvania?

5. Trace the introduction of scientific material into the elementary schools through old text-books or through the program of studies of schools in the late eighteenth or early nineteenth century.

6. Trace the growth of scientific academies and their influence upon education.

7. Through the files of old educational publications trace the development of the influence of the natural sciences on school work and on educational thought.

8. To what extent is Spencer's argument concerning the value to be derived from the method of scientific study valid?

9. Compare Huxley's conception of culture with that of Matthew Arnold in *Essays in Criticism*, etc.

10. What are the arguments for the general educational value of the natural sciences from the point of view of subject-matter? From the point of view of method?

11. What is the educational value of any one particular science, *e.g.* physics, chemistry, botany, etc.?

12. Trace out in greater detail than is given in the text the introduction of the natural sciences into any particular grade of schools in any one country.

13. What was the basis of the religious objection to the teaching of science in the schools, so potent during the first half of the nineteenth century?

CHAPTER XIII

THE SOCIOLOGICAL TENDENCY IN EDUCATION

GENERAL CHARACTERISTICS. — The sociological and psychological tendencies are not antagonistic, nor are the corresponding conceptions of education mutually exclusive. The terms indicate a difference in emphasis and a difference in point of view alone. The psychologists look upon education as the process of the development of the individual; they approach the subject through the study of psychical activities; they emphasize the importance of method — method as a process of development of the mind and method as schoolroom procedure. The sociologists look upon education as the process of perpetuating and developing society; they approach the subject through a study of social structure, social activities, social needs; they conceive the purpose of education to be the preparation of the individual for successful participation in the economic, political, and social activities of his fellows.

Besides this difference in point of view and of emphasis, a few other characteristics may be noted. The extraordinary interest in appropriate subjects of study for every stage of education, from kindergarten to university, is an outgrowth of the sociological influence. This interest raises the question of educational values. Consequently, all traditional studies have been subjected to this test, with the result that some have been rejected and that all have been or are being reorganized. There have been in almost every subject of study many elisions and many additions. When there was

raised the question, What knowledge is of most worth in order that the individual may take his place in society? less and less importance was assigned to the purely linguistic and literary inheritance, and more and more to the knowledge of the phenomena of the natural environment, to the laws of the forces of nature, and to the knowledge of social institutions. Thus this tendency to minimize the old humanistic education and to accentuate the natural and social sciences accords with the scientific tendency.

From the view that education is the process of the development of society, or the less definitely formulated view that education offers the best means for social betterment, there follows the corollary that all members of society must participate in this development. The growth of this sociological conception, in its general rather than in its scientific and technical aspect, is coincident with the development of universal and free education. The growth of public school systems followed the acceptance of these ideas as a necessary consequence.

SOCIOLOGICAL ASPECT OF THE WRITINGS OF PESTALOZZI, HERBART, AND FROEBEL. — While the dominant emphasis given by these men in their writings was upon the method of instruction and while their immediate followers were active almost exclusively in the improvement in the process and spirit of educational effort, nevertheless, in their theory the sociological aspect is very prominent.

In all of his earlier work, before the days of Yverdun or at least before those at Burgdorf, the great object of search with Pestalozzi was a method of improving the welfare of the neglected, degraded, or orphaned poor. The philanthropic motive was uppermost in all of these earlier experiences. But social wrongs were to be righted by teaching children to be industrious. Through teaching them the simplest ele-

ments of knowledge, and this chiefly in connection with handi crafts, they were to be started on the road to self-development and education. As soon as Pestalozzi turned from writing to actual teaching, his main interest came to be, and ever remained, in the method of carrying out his ideas, which was by "the simplification of instruction and the domestic education of the people." But in his theory, if not stressed most in his definitions of education, the social aspect is very evident. Education is ever much broader than the school, and education thus becomes a social as well as individual process, one which is carried on by a variety of institutions. Education is the process as well as the means of bettering society; education is ever to perform more for the individual than to give him rudiments of learning; it is to assist him to be something for himself and to do something for others. It is because of this conception of education that Pestalozzi was always most interested in the education of the poor, the orphaned, the neglected ignorant. It is for the same reason that his methods of instruction received general recognition and application in connection with the training of defectives and delinquents in every sort of reform school and asylum. And it was only because he realized that a practical method of attaining this end was the great essential, that Pestalozzi turned his attention exclusively to the betterment of the process of instruction.

In the case of Herbart the social aspect of his influence appears most clearly in two points: first, in respect to aim, which is found in character, that is, in will functioning aright in society; and second, in respect to subject-matter, which is to represent to the child, in an idealized form, the various aspects of life. With Herbart education was to be moral in its aim, not as in the old dogmatic religious conception, nor even as in the philanthropic, reformatory views of Pestalozzi; education is moral in the broader sociological sense, since education has nothing else as its aim but the formation of the

moral nature. The whole problem of education is to make instruction educative in this sense. Character is given a much broader analysis than formerly it had received, at least in educational thought. Inner freedom, the finding of external expression in efficiency, benevolence, justice, and equity, represent in a new form the well-being and well-doing of Aristotle, and unite the individual and the social in terms of educational aims. The permanent educational problem is how to realize formulated and accepted aims, and to this Herbart devoted his chief attention. With his followers, it is this emphasis upon method that received almost exclusive attention. It is probable that the Herbartian influence of the future, in our own country at least, will concern itself more with the broader sociological implications of the theory of the master than with this more restricted interpretation. In respect to the subject-matter of instruction, the Herbartian pedagogy contains another important sociological bearing, in that the curriculum represents to the child the summary of life in the past rather than merely so much material for the whetting of wits. But as this view received further interpretation in the culture epoch theory, in which the curriculum represents the summary of past stages of culture rather than an idealization and amplification of one's own, its sociological import is subordinated to its psychological significance.

It is with Froebel that the full social significance of the subject-matter of instruction, as the presentation to the child of the simplified and idealized elements of his own life's environment, is fully grasped (see pp. 659–660). As an epitome of life, the curriculum becomes the initial point of all instruction. This conception gives education a wholly new significance, and that a social one. It is the working out of this conception that forms the chief concern of education to-day. While it was the psychological aspect of the problem that first received chief recognition during the present generation, it is Froebel's pedagogical thought, as it is more fully appreciated, that has

come to have a new significance. The intimate practical connection between Froebel and the sociological tendency is indicated by the fact that for ten years the kindergartens were suppressed because of their supposed socialistic bearing. Though this was partly due to confusion of Froebel with a relative of his who held forbidden views, yet it was based as well upon the tendencies of the education given. And it is true to the present day, that no phase of school work has so closely approximated the idea of a society in microcosm as has the kindergarten.

The fact that Kant in his philosophy of education sought a harmonization of the individual and social elements has been mentioned; the same can be discovered in the works of Fichte, Rosenkranz, and others of this group. In fact, it was the latter who formulated the definition, "Education is the preparation for life in institutions."

SOCIOLOGICAL ASPECT OF THE SCIENTIFIC TENDENCY. — In their emphasis on the importance of the subject-matter and in their opposition to the current views of the orthodox disciplinarian educationists concerning the supreme importance of the process of acquisition of knowledge, the sociological and scientific tendencies coincide. However, the emphasis upon the supreme importance of subject-matter is from somewhat different points of view. The approach of the scientists to this position is rather through the value of the natural sciences as they bear upon the welfare of the individual; that of the sociologists is through the importance of both natural and social sciences as they equip the individual for life in institutions and thus secure the welfare of society. It is to be further noted also that all the prominent advocates of scientific education believe in a more extended educational use of the social as well as of the natural sciences. However the scientists and sociologists may differ in the solution of the problem of the curriculum, their point of

view is the same; namely, "What knowledge is of most worth?" If, like Rousseau's "What is that to me?" the formulation of this question by the scientists is in individualistic terms, it is because it is more immediately connected in time and sympathy with this individualism of the eighteenth and nineteenth centuries than are the views of the sociological educators.

In the case of Herbert Spencer, so intimate is this relation between the two tendencies in thought, that he may with justification be taken as a representative of the sociological tendency. So intimate, on the other hand, is the relation between Spencer and the "naturalistic tendency" in education, of which he may be taken as the culmination, that the individualistic interpretation of the aims is apt to be ever uppermost. It is in his views concerning the curriculum and especially the social sciences, as well as in those concerning the dissemination of this new education among the masses instead of among the limited favored classes, that he reveals his sociological leaning. In respect to the first of these points, Spencer's discussions relative to the true nature of history have exerted much influence in replacing the old dynastic and martial conception of history with the more modern, economic, and social conception.

For the economic and utilitarian aspects of the study of the sciences, the sociological tendency has shown strong affinity; for professional, technical, and commercial institutions have grown up quite as much in answer to sociological as to scientific demands.

EDUCATIONAL IDEAS OF STATESMEN AND PUBLICISTS. — The social and political importance of education as well as the responsibility of the state for education was first recognized by the German peoples. The beginnings of state systems of education during the sixteenth century have been noted (Ch. VIII). However, the religious motive and concep-

tion of education was yet dominant during this early period. It was not until the eighteenth century that the politico-economic, that is, the social, conception found full expression. The first monarchs to seize the idea that national prosperity and stability depended at bottom upon general education were Frederick the Great of Prussia (r. 1740–1786) and Maria Theresa of Austria (r. 1740–1780). In his famous school laws of 1763 the former recognized that it was the duty of officials to "strive for the true welfare of our country and of all classes of people" by "having a good foundation laid in the schools for a rational and Christian education of the young for the fear of God and other useful ends." While the early French republicans came to hold a similar conception of governmental responsibility for education and while they outlined a system, it remained for later generations actually to construct it.

In our own country, though education was highly appreciated in the colonial days and though it found a notable exponent in Franklin, it was either the religious conception, as with the early colonists, or the individualistic and utilitarian, as with Franklin's generation, that prevailed. With our early national leaders, a new conception developed.

In his message to Congress in 1790, Washington wrote: "Knowledge is in every country the surest basis of public happiness. In one in which the measures of government receive their impression so immediately as in ours, from the sense of the community, it is proportionally essential." Education, as the dissemination of knowledge, was thus the conception which Washington held. This undoubtedly is the approach to the subject most frequently made from the sociological point of view. Consequently the importance of education lay in the effect which the intelligence of the people would have upon legislation. The chief concern of Washington lay then in the establishment of educational institutions that would serve as instruments of general enlightenment. In the same message he continues: "Whether this will be

best promoted by affording aid to seminaries of learning already established, by the institution of a national university, or by any other expedients, will be well worthy a place in the deliberations of the Legislature." Later, he recommends the establishment of a national university and of a "national central agency charged with collecting and diffusing information and enabled by premiums and small pecuniary aids to encourage and assist a spirit of discovery and improvement." Thus he foreshadowed the work of the Bureau of Education, The Smithsonian Institute, The Carnegie Institution, and the Department of Agriculture; the establishment of a national university is yet unrealized.

Of all our early statesmen, Thomas Jefferson possessed the clearest grasp of the national significance of education and did most to promote such activities. The principle fundamental to this view we are here considering was announced in a letter to Washington in 1786. "It is an axiom in my mind that our liberty can never be safe but in the hands of the people themselves, and that, too, of the people with a certain degree of instruction. This is the business of the state to effect and on a general plan." Education as the safeguard of democracy is the general principle; the fundamental responsibility of the state for the education of the people is the working basis that comes to be accepted in the course of the following half century. How the tremendous task that this idea presented in the days of Jefferson could be accomplished could not then be seen. The solution awaited the gradual acceptance of this principle by the people and the growing ability and willingness to tax themselves generously for this end. With Jefferson this idea was bound up with the further one of local self-government. In other words, schools supported by local taxation, and controlled by the local community as in New England, offered the solution of the new problem of democracy on a large scale. Late in life he wrote: "There are two subjects, indeed, which I claim a

right to further as long as I breathe, the public education and the subdivision of counties into wards. I consider the continuance of republican government as absolutely hanging on these two hooks."

James Madison (1751–1836), the third President, was, next to Jefferson, the most active of our earlier statesmen in educational work. "A popular government without popular information or the means of acquiring it, is but a prologue to a farce or a tragedy, or perhaps both," he wrote. Consequently he held that "the best service that can be rendered to a country, next to giving it liberty, is in diffusing the mental improvement equally essential to the preservation and enjoyment of that blessing."

With these two statesmen such views were not mere opinions, for they devoted quite as much attention to educational activities and interests as to those of a political character. At the very beginning of this greatest of experiments in popular government, they realized most clearly that the success of it as well as the economic prosperity and social progress of the people depended upon their intelligence as that was secured and guaranteed by a most general scheme of education. No such system as would be adequate to the needs could be furnished by any other means than the state. As might be expected, their views were a half century or more in advance of the actual realization of these ideals.

EDUCATION AS A PREPARATION FOR CITIZENSHIP.— The conception of education common to all of these statesmen and public leaders is that education is primarily a preparation for citizenship. It was necessary for several generations to intervene after the Rousseau influence, to bring about a general realization that this social conception was a very different one from that of the individuality-repressing education which Rousseau sought to overthrow. In fact, in our own country, it was near or after the middle of the nineteenth cen-

tury before this social conception of education replaced with the masses of the people the prevailing individualistic one. This individualism, however, was not the individualism of Rousseau and of the early psychologists, founded on the conception of education derived from a consideration of the child's mind; it was an individualism based upon economic, political, and social considerations. The prevailing view among those giving no technical consideration to the problem was that the function of democratic government was to give to every individual freedom of opportunity, — a free field and no favors, — and that education was to equip the individual in the best and briefest way for this harsh competitive struggle. With these premises only the most utilitarian view of education could prevail. In contrast with this, the sociological conception of education has received common acceptance among the people through the idea that education is a preparation for citizenship. In the old view, the function of education was to develop the ability, improve the habits, form the character of the individual, so that he might prosper in his life's activities and conform to certain social standards of conduct. The idea emphasized in the citizenship conception is that individual and social welfare, happiness, and righteousness depend more largely than ever before recognized upon the relations existing between persons and classes in institutional life. Therefore education has a new work, that of clarifying the basal principles of this relationship and of giving information concerning the very complex relations in society, and a new aim, found in social motive. The new work demands a readjustment of emphasis upon subjects of instruction, with greater attention to historic, economic, and literary subjects. The new aim requires a greater attention to the formation of character, social habits, patriotic and altruistic motives. The first adds new emphasis to the importance of the knowledge side of education; the second, to the moral aim. Education thus becomes, though indirectly, the force

modifying social institutions by bringing about a better adjustment of individuals to one another. Progress is the characteristic of modern life; ability to adjust one's self quickly and properly to new social conditions is the chief demand upon education. This necessitates a knowledge of these changing conditions and an ability and willingness to bring about the readjustment. These are usually summed up under the term "good citizenship." The popular literature, revealing this general sociological conception of education, will be found for the most part devoted to the exposition of education as a general preparation for citizenship or for life in institutions; and the popular conception but expresses in concrete form that which is given more technical expression in scientific literature.

PLACE OF EDUCATION IN SOCIOLOGICAL THEORY. — The subject of education occupies an important place in the sociological literature produced in the last few generations. Since the time of August Comte, who founded the science of sociology and coined the term, various interpretations of the place of education in social economy have been made. It will be impossible in a brief space to notice many of these; a statement of four of the most important must suffice. Comte himself gave only incidental attention to education in his writings. Though his great interest was in the dynamic aspect of social life and his chief quest for a philosophy or explanation of social progress, he did not grasp the importance of education in this process. It remained for the leading exponent of his ideas in this country, Professor Lester F. Ward, to perform this service. In his *Dynamic Sociology*, — which, though a much-neglected work, is, in fact, the most elaborate treatise on education published by an American, — this exposition is given. The substance of the theory is as follows: —

The fundamental social theses are derived from the psychology of the individual; namely, that the feelings constitute

the basal factor in life, that the tendency to action or the motor responsiveness to stimuli is the fundamental characteristic, that from the evolutionary point of view feeling has been developed as a means of preserving life, and that the intellect was similarly developed as a means for securing ends that the will unguided could not secure. The emotional-volitional aspect of mind thus becomes primary; the intellect is developed as a guide to action. From this position, acceptable enough to modern psychological thought, sociological doctrines of a radical nature are developed. Feeling furnishes the motive power, intellect the guiding power, to all action, first of the individual, then of society. Conduct indeed depends upon desires, but desires depend upon ideas, that is, opinion and feeling, and these in turn depend upon education. Consequently it is the highest duty of society to furnish to every individual member an adequate education. This education, however, should not be that furnished by individuals or societies interested in giving to the child educated a particular set of beliefs. "It should consist exclusively in furnishing the largest possible amount of the most important knowledge, letting the beliefs take care of themselves." Thus at one point the views of Froebel are approached, in another those of Herbart, and in this last, the emphasis upon the importance of knowledge, the views of the natural scientists, notably those of Spencer.

Further, according to this view, progress depends upon intelligence. Intelligence is the product of two factors, the degree of intellectual power and the product of its action; in other words, upon intellect and knowledge. The degree of intelligence can be improved only indirectly, through observance of the laws of heredity and the influence of environment or through the process of acquiring knowledge. The extent of knowledge can be increased directly; hence from both points of view the function of education is to increase knowledge. The indirect means for the increase of intellectual power, that is, selection and rational change of environment, have been at work for generations, with the result that the amount of useful knowledge possessed by the average mind is far below its intellectual capacity. Thus the degree of intelligence is correspondingly below what it might be, and the great educational need, from the social point of view, is

the more thorough dissemination of the great body of valu able knowledge already extant. So far as there is necessity for the origination of knowledge, individual interest will care for that, and it is easier and more rapid than any increase of intellectual power can be.

Thus education becomes a most important social function It should be controlled by the state and not by private parties. It should concern itself chiefly with the dissemination of knowledge, for upon this depends the general intelligence, and upon general intelligence, in turn, depends social progress and happiness. But the final relationship of education to society is not yet clearly revealed. The highest social process is that of "sociocracy," — the rational control and direction of society by itself to reach certain determined and valuable ends. In other words, the highest form of social control and direction is "politics," though politics in a sense as yet hardly realized. Education, as the dissemination of knowledge which will serve as a basis for this highly rationalized social process, — that through which all others are obtained, — thus becomes the most immediate means to that end. This scientific and abstract thought comes to essentially the same position formulated by the common thought in terms of "preparation for citizenship." In formal terms education is defined "as a system for extending to all members of society such of the extant knowledge of the world as may be deemed most important."

A second of these general sociological views considers education as a means of social control. This is but another interpretation from a different point of view of Comte's philosophy. As society in the past has relied chiefly upon the government with its direct means of control through force, and the Church with its indirect means of control through beliefs, ideas, ceremonies, rewards, and punishments of immaterial character, so now it comes to depend more and more upon the indirect means of control exercised upon the coming generation through the school. This indirect means is far more economical than the direct means, since it depends so largely upon mere suggestion exercised by teachers rather

than upon a force which rouses opposition. It is more economical than when exercised wholly by the Church, in that it is largely intellectual and rational, and thus, through the self-interest and rational enlightenment of the individual, prepares directly for activities valuable from the general social point of view.

Not but what the moral motives should be just as emphatically emphasized; they should be rather more emphasized than ever, but they should be moral motives of a different character. As education in the hands of the parent sought to control the child for the sake of his practical success in life; and the education of the Church to control him for the sake of the organization and for his own eternal salvation; so the education of the state seeks to control the child for the sake of the welfare of society which includes the individual and his fellows as well. Thus as a form of control, education is merely an instrument of society similar to law, to police force, to religion and the Church, to organized public opinion, and to various institutional customs and traditions. But as such it operates in a peculiar way, not directly by force, but indirectly through the suggestive power of ideas and through the impartation of knowledge; not immediately upon the adult, but through the medium of a coming generation.

A third estimate of the function of education from the sociological point of view is a much more fundamental one. Suggested in this meaning by social philosophers from the time of the Greeks, it was first given modern statement by Francis Bacon. He emphasized the importance of the study of tradition, — the transmission from one generation to the next of the substance of the learning and culture of the past. From this point of view education, in modern sociological theory, becomes the "effort to preserve the continuity and to secure the growth of common tradition."[1] Since the

[1] Vincent, *The Social Mind and Education*, p. 91. Chapter IV of this work gives the brief presentation of this entire theory, as summarized in the paragraph above.

"social mind" or this common tradition or summary of human experience exists only in the mind of individuals, such continuity can be preserved and development secured only "by preparing the young gradually to appropriate the collective tradition in general and by training a few minds to receive and elaborate its various highly specialized divisions." Without this inheritance of racial experience by participation in social institutions, the individual becomes an abstraction. There is no social mind, it is true, aside from the individual minds which collectively constitute it; but, on the other hand, there can be no individual mind save as it receives its content from this social one. Thus the negative of Rousseau's idea of a "natural" education is reached. This, however, is not a return to the view against which Rousseau revolted; but, by a completion of the circle of thought, it is a compromise of the two extreme views in a conception which rejects both the unchecked individualism of the one and the unlimited dominance of authority of the other. The individual is educated, or he develops, by incorporating within his own experience the summarized achievements of the race; social stability is secured by this same process and social progress through the modification and slight increment which the individual may furnish to tradition. Thus it is not to a fixed, but to a constantly changing environment that the individual is adjusted. This is the fundamental characteristic of modern education. For it is because the thought and institutional as well as the natural environment is constantly changing that the individual, in being adjusted to it as perfectly as the adult generation can secure, must preserve and develop his own individuality. It is the *power* of adjustment to a changing environment, not the fixed adjustment in itself, that modern education seeks to secure for the individual as its highest product.

Thus is suggested the fourth and highest aspect of the sociological interpretation of education. Education becomes

the most advanced phase of evolutionary process, or at least its most advanced method. The most general aspect of the theory of evolution is that vast uninterrupted and eternal forces of development obtain throughout all nature, and that all phenomena, physical and mental, are subject to law. In the more specific sense organic evolution is that adaptation of organic life to its environment which is secured for the most part through the process of natural selection. Human evolution is such self-adaptation of the human race to its environment as results in development. With this stage of evolution the institutional aspect of environment is most important and social selection of greater functional significance than natural. However, so far as the race as a whole is concerned, such development has been largely unconscious. That is, since the social consciousness rather seeks to prevent change, social progress has resulted for the most part through the conscious effort of the individual to secure for himself some advantage which is not permitted or, at least, not consciously given by society. The highest form of social selection is attained when society becomes conscious of the aim,— a given social status, — and of the process through which the desired results are to be secured. Since the group has now conceived definite ends and the definite method of procedure through which it shapes the character of its constituent members and thus affects its own well-being, the process is a self-conscious one on the part of the group as well as on the part of individuals. Though of chiefly a negative character, legislation in general is such a method. The great positive method developed by modern society for effecting these purposes is public education. Education thus becomes for the social world what natural selection is for the sub-human world,—the chief factor in the process of evolution.[1]

[1] For further development of this thesis see in bibliography, under Ward Mackenzie, Vincent, Howerth, and Davidson

PHILANTHROPIC-RELIGIOUS MOVEMENTS FOR EDUCATION. — The growth of the systems of public schools, now supported by all advanced nations, has been along two lines of development, or rather through two successive stages. The first of these was the stage in which schools were supplied chiefly by private voluntary enterprise, from motives of religious and philanthropic character. While leaving the management in private or in quasi-public control, the state yet came to contribute to these very generally. The second of these stages is that in which the political and economic bearing of education receives general recognition and states accept the responsibility for general education of all of the people as one of the functions of government. The importance of this philanthropic stage varied with different countries. The more prominent of these philanthropic-religious school movements, as they entered as constituent elements into the formation of our own public school system, deserve notice.

Philanthropic-Educational Movement originating among the German Peoples. — Mention has already been made of the various philanthropic institutions founded by Francke at Halle, beginning with 1694, that developed into training schools for teachers, educational institutions of a practical character for orphans, and finally into the *real*-schools of the German states. The philanthropic movement under Basedow which, beginning with private institutions, led through the training of teachers and the production of a voluminous literature to the introduction of a study of natural phenomena, of more agreeable methods, and of a new and better spirit into the schoolroom, has also been noticed. Similarly the Pestalozzian movement had its philanthropic aspect. But with the establishment of the school at Yverdun, the chief attention of Pestalozzi, under the influence of his assistants, was directed toward the improvement of methods. The philanthropic aspect of the work was carried on by Emanuel von Fellenberg (1771–1844).

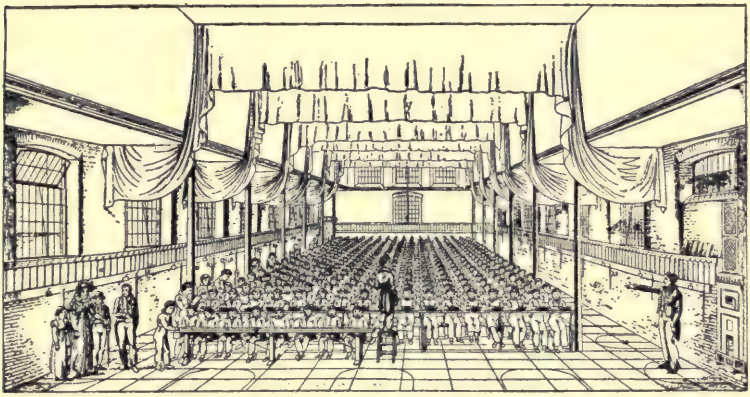
The Fellenberg Movement. — At Hofwyl, near Burgdorf, Fellenberg conducted most successfully, from 1806 to 1844, a school that was pronounced by so competent an authority as Dr. Barnard to have been the most influential school that ever existed. The pedagogical principles underlying the work of the school were similar to those of Pestalozzi, with whom Fellenberg had been previously associated in a school experiment. The sociological purpose of the Hofwyl school was twofold: first, to educate the youth of the peasant class in agricultural and technical pursuits, and in connection with these industries to give them the elements of an intellectual education; second, to bring the upper class into closer sympathy and understanding with the peasant class by educating them together. Therefore, two schools were established on an estate of some six hundred acres; the literary institute, which gave the ordinary classical education, and the practical institute, which gave the education of the peasant boys for more intelligent farmwork. Both groups of boys had school gardens, both were expected to work on the farm, one for training in future management, the other for future service. There was an agricultural school for scientific instruction, a printing press where the literature and music of the school were printed by the boys of the school, workshops where they made their clothing and agricultural and scientific instruments, and other similar institutions. In time there were established a school for girls and a normal school for teachers, where for a time all of the teachers of the adjacent city of Berne were trained. In almost every respect the schools seemed to be a parallel of those at Hampton, Tuskegee, and other places that are attempting a similar solution of social problems in the present.

From 1825 to 1840 scores of these "manual labor institutes" were established all over the United States. All, or very nearly all, the institutions of academic or collegiate rank that were established within these time limits, were founded

upon this basis. Many of these, such as Oberlin, soon developed into colleges. The majority of them were fostered by some religious denomination. While in these institutions philanthropic and religious motives were prominent, the pedagogical principles of Fellenberg were minimized. In the American literature that grew out of this movement but two motives were emphasized: one, the opportunity afforded by these institutions for a higher education at a lessened expense; second, the better health and consequently more active intellectual life produced by the course of life followed. With the improvement of the economic conditions of the country and the development of more of the formalities of social life, toward the middle of the century, the manual labor feature was dropped from most of these institutions. This feature had served one purpose, however, — that of making these institutions possible. The sociological aspect of the Pestalozzian movement that related to the development of educational institutions for the deaf, dumb, blind, maimed, and orphans, and of educational-reformatory institutions for juvenile offenders and first offenders, can only be mentioned.

The Monitorial Systems of Bell and Lancaster. — In 1797 Dr. Andrew Bell introduced into England a system which he had employed in an orphan asylum, that of using the older boys for the instruction of the younger. By him, and especially by Joseph Lancaster (1778–1838), the system was developed until it became for England a somewhat inadequate substitute for a national system of schools. Through the use of a few conduct monitors and a sufficient number of teaching monitors drawn from the more advanced students, and through a system of organization and of method, it was possible for one teacher to direct a large number of pupils. With Lancaster the ideal, which he himself realized before he was twenty years of age, was for one teacher to control a school of one thousand boys. Thus in the absence of any willingness on the part of the people adequately to support

schools, with the government opposed on principle to contributing for such purposes, and with the religious bodies wholly unable to cope with the needs of the times, the monitorial system made possible some general attention to public education. The Bell system found little or no footing in America, since it was connected wholly with the Church of England schools. The great service which the Lancasterian system rendered in our own country was in accustoming the people to schools for the masses of the people, to contributing



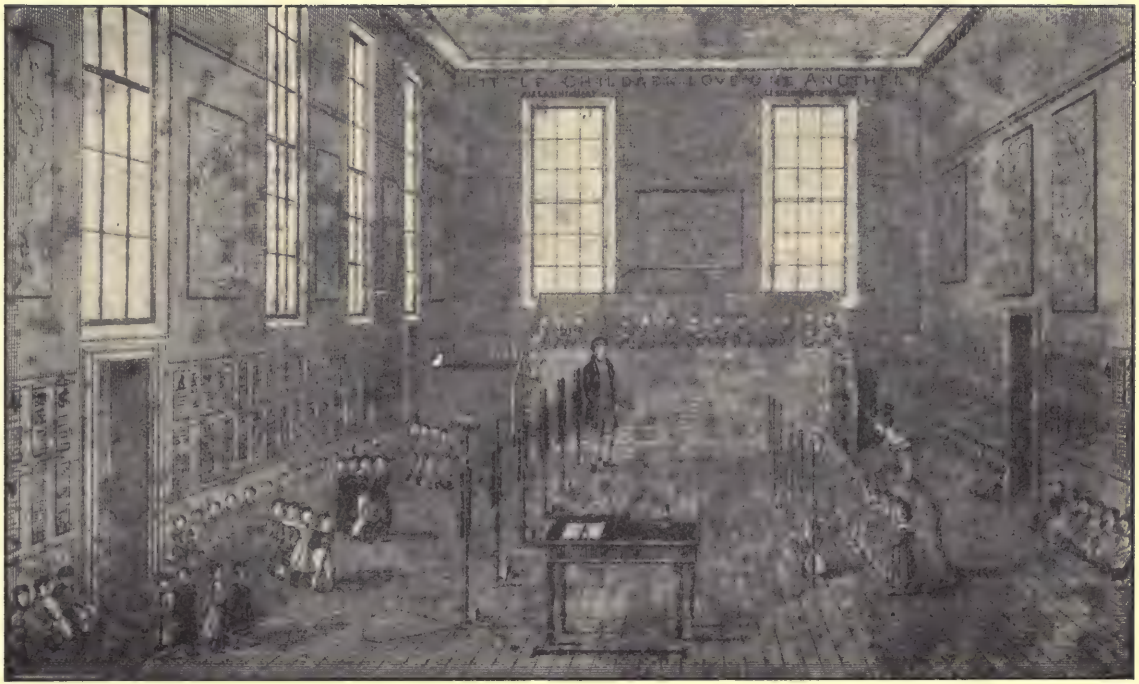
A Lancasterian Monitorial School, with Recitation Semicircles and Lesson Boards arranged around the Room.

to their support as individuals, and in gradually educating the people to look upon education as a function of the state. In addition to this it introduced a better system of grading, since all Lancasterian schools were rigidly graded on the basis of arithmetic work, and also on the basis of spelling and reading. Hence it was possible to promote in the one subject without in the other. Moreover, it brought in a better arrangement and classification of material and a better organization and discipline of the school. The great defects of this system were that the work was most formal; that most of the instruction was extremely superficial; that the discipline was rigid and

mechanical; and that the information gained was the result of formal memory work. There was absolutely no conception of the psychological aspect of the work and no intimation whatever of the newer, broader, and truer conception of education that was developing on the continent.

In 1805 the Lancasterian method was introduced into New York City. Within a few years almost every city from Boston to Charleston, in the South, and Cincinnati, in the West, had its monitorial or Lancasterian schools. Lancaster himself came to this country and assisted in the New York, Brooklyn, and Philadelphia schools. In the third decade of the century, the system was introduced in New York and Boston into a new type of schools, the newly founded high schools. For this and the two following decades the system was widely popular in the many academies throughout the country. As in the case of the Fellenberg system, with which it was often combined, the system disappeared in consequence of the arousing of public opinion on the subject of education, with the growing material prosperity of the people and their willingness to contribute more liberally to the cause of education.

The Infant School Movement was of similar import. Originating with a French country *curé* in 1769, these schools were soon introduced into Paris and became the progenitors of the *maternal schools*, so common in all French cities at present. In England the infant schools originated independently with Robert Owen about 1799 at New Lanark, Scotland, as a means of checking the evil effect of the factory system on children. The factories of England at that period employed a large number of children that were bound out to them by the poor commissioners, at five, six, and seven years of age for a period of nine years. As these children were employed from eleven to thirteen hours a day in the factory, and at the end of their apprenticeship were turned free into the ignorant mass of the city population, their educational condition can be imagined. The infant schools were con-



THE INFANT SCHOOL: INTRODUCED INTO THE UNITED STATES, 1820–1830.

trived to meet this situation. In 1818 the new idea was carried to London by James Buchanan, the teacher of Owen's school, and soon in the person of Samuel Wilderspin found an enterprising exponent who was at the same time a voluminous writer. In 1834 "The Home and Colonial Infant School Society" was formed for the multiplication of schools based upon Wilderspin's ideas. Almost ten years before this time the schools had appeared in New York, and were soon imitated in most of the other large cities of the country. Even where public schools were established no provision was made for children of the earliest years; the monitorial schools in most places similarly restricted their *clientele*. In the early nineteenth century the public schools of Boston were forbidden to receive children who could not read and write. The Infant School Societies found abundant work to do in most cities. In many places, as in New York City, they were the progenitors of the primary department of the public schools; and to the present day, the independent organization of the primary department and the sharp division drawn for it in the school building is but a survival of the distinct origins of the grammar and primary grades.

Public School Societies in the United States.— All of these educational interests were promoted and by far the greater part of educational opportunity was furnished, by the organization of citizens into quasi-public societies. The history of schools in one city will serve as a type. With the exception of Church schools, and a school for negroes founded in 1787 and supported by the African Free School Society, there were no free schools in New York City until 1805. During that year, under the leadership of De Witt Clinton, the mayor of the city, a free school society, later called the Public School Society, was organized. The aim of this institution was to offer educational opportunities gratis to the children of the poor who were not provided for by the existing Church schools. The Lancasterian method of organization and in-

struction was adopted. In 1827 an infant school society was formed for the support of schools for children from three to six. While the Wilderspin organization was followed, there was an attempt to adopt the Pestalozzian method. Within a few years these schools were incorporated into the Public School Society as primary departments. In addition to funds contributed by private parties and those raised by lotteries, the state, from 1816, had contributed from the common school fund to the work of this society, and the city had made annual appropriations. In 1842 a city school board was formed and public schools were established under its control. It was not until 1853 that the schools of the society were transferred to the control of the school board and a free public school system was really established. While the transition was somewhat more tardily accomplished in New York than in other communities, yet every American city, except a few of New England, passed through a similar development. Public school societies, not always bearing this exact title, existed in Philadelphia, Buffalo, Albany, and even as far west as Cincinnati.

In Boston, where elementary schools had existed in connection with the Latin Grammar School since 1666, and probably from an even earlier date, and where such schools had long been free, primary schools were no part of the public school system. The reason for this is somewhat peculiar. The law required that the child could not be admitted into the grammar (or public vernacular) school until he could read and spell. While it also authorized the establishment of these primary schools, none had been formed. Such instruction was gained through the Church schools, the numerous private schools, and through one other form of school fostered by societies, the Sunday-schools, established at first for secular instruction. In 1817 it was found that while 2365 children attended the public grammar schools, there were 3767 children attending private schools, 365 attending charity

schools, and 526 of primary school age not attending school at all. A primary school society was formed in the following year. While this movement was opposed by the town selectmen and the school committeemen, it was approved by the town and supported for the most part by town funds. These schools were incorporated with the other city schools in 1855. Thus in various ways private philanthropy came to the assistance of public enterprise in the support of schools. With regard to common schools at least, the philanthropic-religious period was terminated by the middle of the nineteenth century, yet it is to be remembered that kindergarten and manual training schools have found their way into the public schools within a generation, largely through the channel of privately supported organizations.

DEVELOPMENT OF MODERN STATE SYSTEMS OF EDUCATION. — In considering the somewhat tardy development of public, especially city school systems in our own country, it is to be borne in mind that few other municipal services were at that time developed. Water supply, street lighting, street cleaning, fire protection, even police protection, were yet matters of private enterprise. When the absence of all experience in any generous support of educational activities by taxation is borne in mind, it is not to be wondered that the development of the idea of free public schools and of a willingness to support them by general taxation were of slow growth. In aristocratic states, such as those of the Teutonic peoples, where the foresight of the ruling classes rather than the general intelligence and generosity of the people determined the situation, less opposition to the development of the modern attitude toward education would be found. But a more important factor than the aristocratic-social one was the ecclesiastical-political one. Previous to the later part of the eighteenth century, it was the religious motive that controlled in education. Consequently only where the Church and State

were closely united and where the Church desired to carry out some general scheme of education, did the State attempt to develop and control systems of public schools. The regions where these conditions prevailed have been noticed previously (pp. 407, 435–437).

Germany. — Thus it happened that state systems of schools first developed in Germany; that, as a result, the philanthropic phase of school development was less prominent there because less necessary and was wholly of a supplementary and reformatory nature; and that there the politico-economic stage of school development was first reached and most thoroughly carried out. The politico-economic motive, while very definitely announced by Luther (pp. 411–414), came slowly into public acceptance. It was the religious motive that was uppermost and the Church that was speaking through the State. Philanthropic movements, supplementing this development and assisting toward the more complete recognition of the sociological conception of education, have been noted from time to time.

The first clear recognition of the conception that education lies at the basis of the economic prosperity, the political power, and the social well-being of a people was, as mentioned, by Frederick the Great and other German monarchs of the later eighteenth century. It was not until 1763, at the close of the Seven Years' War, that he could turn his great energies to the subject of education. In his *General School Regulations*[1] of that year, school attendance was made compulsory, adequate training and compensation for teachers were provided, proper text-books arranged for, methods improved, supervision secured, and religious toleration in education proclaimed.

It was not until 1794 that the transition to the new basis was completed. In the school law of that year, which met

[1] See Barnard's *German Teachers and Educators*, p. 593, for translation of these *regulations* in full.

with prolonged opposition from the clergy and from large portions of the people, a variety of new principles were stated. All public schools and educational institutions were declared to be state institutions. All schools, whether private or not, were to be under the control and supervision of the state. All teachers of the gymnasien and higher schools were to be considered state officers and the appointment of such teachers belonged to the state. No person could be excluded from a public school on account of religious belief, nor could a child be compelled to remain for religious instruction contrary to the faith in which he had been brought up. From 1808 to 1811, under Von Humboldt and Von Schuckmann, the spirit and conduct of the elementary schools were revolutionized by the introduction of improved methods based upon those of Pestalozzi.

General revision of the school laws of Prussia occurred in 1825, 1854, 1872. The tendency of these revisions as well as of subsequent minor changes has been toward the more general support of schools by the central government, with corresponding diminution of support from local and private sources; toward the complete abolition of tuition fees for the elementary schools; toward the centralization of the administration and supervision of schools at the expense of the rights of the local community; toward an improvement of the teaching staff and of the processes of instruction; and toward the complete elimination of ecclesiastical influence. While local pastors are found in the great majority of local school boards, the sentiment of the school as represented by the teaching class is strongly in favor of the elimination of the one remaining form of ecclesiastical control. The point to which other countries must give so much attention — the administration of an effective compulsory school law — has been on account of long experience almost automatically operative in Germany for more than a century.

France. — Agitation for public education in France began

with the campaign in public opinion against the Jesuits and with their expulsion (1764). Yet at the opening of the Revolution more than half of the men and three-fourths of the women of France could not sign their names. The importance of the educational discussion in the literature and reports of the Revolution has previously been mentioned (p. 575). The early Revolutionary Assemblies received many reports on education; the later Conventions passed many laws. But little in the way of execution was accomplished. In 1795 the National Normal School and numerous secondary schools, *The Central Colleges*, were established. Conditions were so chaotic that little was accomplished and this little did not effect the one thing demanded by the Revolutionary sentiment, — universal, compulsory, free education. In 1806 was established the University of France, which included in itself, practically as a department of the national government, all secondary and higher education. Both Napoleon and the government of the Restoration neglected elementary education. This was left to religious societies and monitorial schools after the plan of Bell and Lancaster. Public elementary education dates from 1833. At that time Guizot, Minister of Public Instruction, proposed and carried into execution a law which established elementary schools of two grades, primary and grammar, in practically every commune. These offered tuition to the poor without expense; provided religious instruction and reserved to the government the right of appointing teachers and determined their salaries. Primary education was made free in 1881 and compulsory in 1882; the present organic law establishing the most perfect system of centralized and state-controlled schools now in existence dates from 1886. Until very recently Church schools were as numerous and more influential than the non-sectarian state schools. Until 1882 religious instruction was given in all schools. All private schools are required to have the sanction of the state. Since 1901 all religious congregations

have been required to obtain authorization and legal recognition in order to carry on educational work. The supplementary legislation of 1903 has practically closed all religious schools.

England. — In England, the land of institutional evolution rather than of revolution, this transition to the politico-economic stage has been longest delayed and is yet far from complete. The various philanthropic-religious school societies have been enumerated in connection with the movements from which they sprang. As in many localities of the United States, the first public support of education came in the form of grants to these societies. Beginning in 1833, after a long controversy as to whether the government had any right at all to interfere in connection with education, the English government continued to grant annually an ever increasing amount to the schools maintained by the National Society and the British and Foreign School Societies. These grants were used chiefly for the erection of schoolhouses and upon condition of the right of government inspection. In practice none but clergymen were appointed inspectors; moreover, schools were required by law to give instruction in religion. As a result of parliamentary grants, teachers' training colleges were opened in connection with these societies in 1841 and 1844. Grants for pupil teachers, for books, for school supplies, were added within a few years. In 1861 the system of distributing these grants according to the number of pupils that had satisfactorily passed the examinations given by government inspectors in specified subjects was adopted. This is the "payment by result" system, which produced a formalizing tendency in the work of the schools and has only recently been abandoned. By the act of 1870 were established the first elementary schools organized, supported, and supervised by the state. These are the "board schools," controlled by local boards and supported partially by local taxation, which must be at least equal to the government

grants. Until 1903 no voluntary or Church school was permitted to participate in funds from local rates. By the law of 1870 compulsory attendance regulations might be adopted by district school boards; but until there were schools, such laws would be anomalous. By the law of 1880 compulsory attendance under ten was provided for; by that of 1899 the age was raised to twelve, and by that of 1900 the local boards were permitted to raise the age limit to fourteen. Until 1903 these two systems of state or "board schools" and Church or "voluntary schools" remained side by side. While the voluntary schools were yet more than twice as numerous as the board schools, in the number of teachers the latter had outrun the former; the number of pupils in each class was about the same. There were 5878 board schools with 38,395 teachers, to 14,275 voluntary schools with 29,283 teachers. The relationship of these two types of schools to each other and to the governmental grants remains the most prominent educational problem of England.

The United States. *Early Free Schools.* — It appears that from the latter half of the seventeenth century some of the town schools of Massachusetts were free in the modern sense of the term in that they were supported wholly by public taxation. Many of the early New England schools received their support from a variety of sources, such as the sale or rental of public lands, rental from fish weirs, from ferries, from bequest and private gift, from subscription, from local rates, and in nearly all cases from tuition of students. Wherever in the colonies it was customary for the local or colonial government to assist schools by grants or by taxes, it was also customary for the schoolmaster to supplement this small allowance by tuition charges regulated for the most part by common custom. As the schools established by the towns required some previous training on the part of those entering them, usually the knowledge of the alphabet or the ability to read, "dame schools" of a most rudimentary character

sprang up in great numbers. The government of the New England towns was a pure democracy, and the control of schools remained for a long time in the hands of the town meeting itself. Only gradually were powers delegated first to the selectmen and then, in the eighteenth century, to a school committee. Then the necessity for tuition fees from the pupil was replaced by a more generous assessment upon the town. Thus it happened that in Massachusetts by the middle of the eighteenth century, and in other New England commonwealths shortly afterward, elementary schools were for the most part free. These early systems of public or free schools were largely due to the religious devotion of the New England people and to the practical identity of Church and State.

The Educational Revival of the Early Nineteenth Century. — With the decline of the religious fervor and of the unanimity of religious belief in the later eighteenth century, interest in education declined also; the Latin grammar schools disappeared (p. 395); private schools — the academies — took their place; and the elementary schools became more minutely subdivided and less generously supported. The establishment of schools upon a politico-economic basis was a growth of the nineteenth century. Although this transition went on during the entire half century, it was concentrated in the period from 1835 to 1850, to which has been given the name of its leading agitator, Horace Mann (1796–1859). Since schools were very generally supported by local taxation in Massachusetts, the reforms striven for by Mann as secretary of the Massachusetts School Board (1837–1849) were the abolition of the small district schools in favor of the better-supported, better-taught, better-equipped and more centralized town schools, a better preparation for teachers, the establishment of normal training schools, a longer school term, school libraries, an enriched curriculum, improved methods of instruction, and the building up of a spirit of educational enthusiasm among the people and of professional spirit

among the teachers. The immediate result of the labors of this first great organizer of American educational forces was that during his secretaryship the appropriations for the common schools were doubled, the wages of men teachers increased 62 per cent and those of women teachers 51 per cent; the relative number of women teachers increased 54 per cent; the annual school term was increased by one month; the ratio of private to public school expenditure fell from 75 to 36; compensation for school supervision was made compulsory, and hence both compensation and supervision increased and improved; fifty new high schools were established; the first normal schools in America were founded; school attendance increased; methods, discipline, and spirit of the schoolroom were changed vastly for the better. One great object which Mann sought for — the abolition of the district school system — was not accomplished (1859) until after his retirement from office, and not permanently until 1882.

This educational revival was not confined to Massachusetts; there were many leaders as able and some, such as Henry Barnard, as prominent as Horace Mann. Chairs of education were established in several colleges. Though there had been one state superintendent of education before this time (in New York from 1813), many states now established such an office. A movement toward the concentration of administration of school affairs began. Educational magazines were established and a voluminous literature appeared. Educational commissioners were sent abroad by several states; common school funds were established; and, above all, some progress was made, by the leaders at least, toward an appreciation of modern methods and the modern spirit in education. This latter came largely through a greater knowledge of and appreciation for the ideas and methods of Pestalozzi and of the German schools.

Modern State Systems of Education. — As with Germany,

there is no single system of education in the United States, but an independent system for each state. Yet the outline and general characteristics of these systems are much the same. The amalgamation, or development into consistent state systems, was an outgrowth of the revival previously discussed and of the establishment of the free school idea. The final establishment of the idea of free schools in the modern sense of the term was of quite recent occurrence. In New York the abolition of tuition in public schools was made by law in 1867. In New Jersey and Michigan it did not occur until the following year. In Pennsylvania the law was passed in 1834, and in Indiana it was embodied in the constitution of 1851. The free school system, thus developed, is constituted as follows: In every state the system of elementary schools offers instruction for seven, eight, or nine years, from the fifth or sixth year of age. In most states a secondary or high school course provides instruction for three or four additional years. In all except a few of the extreme eastern commonwealths, state universities offering free tuition to all, or to all from within the state, are to be found. In only a few states are the local communities compelled by law to furnish high schools or to provide in neighboring schools for all children who desire the advantages of a secondary school. Varying degrees of unification among these parts of the school system or in the administration of any particular part of it, as that of the elementary schools, exist. The same forces that worked toward the development of this system now work for the closer unification in administration. First among these is the influence of the general government exerted through the very generous gifts which constitute a bond of interest for all institutions that participate in the privileges. Thus since 1785 the government has given to the common school system 78,659,439 acres of land, valued at about one hundred million dollars, and for agricultural educational institutions an annual endowment which capitalized would amount

to a sum equal to the former one. A second factor is the influence exerted by the state government through the distribution of the revenue derived from common school funds, in most cases those growing out of the gifts of land from the general government and of the funds from state taxation. Such distribution has usually been so conducted as to call forth a greater effort of the local community in the matter of local taxes and to maintain higher standards of teaching efficiency than mere local control would have secured. The influence of state universities as the culmination of the public school system has been a yet further cause of unification. Undoubtedly the greater influence resulting from the building up of these state systems of public schools has been the education of the people themselves to a belief in the efficacy of education as a solution for many social problems, in the necessity of education as a basis of political stability and economic progress, and to a dependence upon education as the chief means of social and national progress; in other words, to an acceptance of the sociological conception of education. Along with this has developed a willingness to tax themselves heavily for the most general support of the public schools and a consequent tendency to greater centralization of administration and supervision as a means to greater efficiency. During the earlier part of the century there prevailed the idea that free schooling was a matter of charity and that it was pauperizing in its effect. Although that prejudice has disappeared with the growth of the free school system, there yet remains to be thoroughly inculcated the idea that for the welfare of the group as well as of the individual, the state may and should compel the attendance of every child for a period of six or eight full years. A further development of compulsory attendance laws, which have nowhere reached the stage of efficiency found in the leading European nations; a better preparation of teachers and a better supervision of their work;

a perfecting of the process of instruction and of the technique of instruction that these new ideas may be realized — such are the lines of development open to the public school system of the present.

THE INDUSTRIAL TENDENCY. — The politico-economic tendency until very recently has been dominantly political; it is now becoming dominantly economic. In order to understand one of the most prominent characteristics of present educational activities, this fact needs some further explanation. The agreement of the scientific and the sociological movement in their earlier effects on education has been mentioned. The fact that the basis for this early sociological movement was chiefly political and military can be illustrated by this one series of facts: with the exception of the school in connection with the royal mines at Freiburg, Saxony, the first institution for the higher education in engineering and other scientific lines was the Austrian Military School at Vienna, established by Maria Theresa in 1747; the French monarch followed with the school at Menzières within a year or two; and Frederick the Great established a *Ritter-Academie* of a similar character in 1764. The first school for scientific and engineering instruction in our own country was at West Point (1802). The first technical instruction of a public character in England was the outgrowth of the training of naval and military officers, and then not until the middle of the nineteenth century.

Until recently the training for citizenship that has always been assigned as a chief function of state systems of schools has been along political and social lines. The aim of education was to prepare the individual to exercise the right of suffrage intelligently, to perform the duties of citizenship fully and honestly, to discharge the duties of office satisfactorily. At least in our own country, with its democratic social structure, the emphasis in public education has been largely from this point of view. For several decades past in

Europe, and in recent times in our own country, a new interpretation of education for citizenship is being given. It is that education is to make the individual a productive social unit economically and hence a valuable citizen. Especially in continental Europe, above all in Germany, has this tendency been long emphasized. The commercial and industrial advance, and that means the political and social advance, of the various nations during the past half century, has been in very vital relationship to their educational advance. England and America have just awakened to this fact; hence many radical changes are now being proposed, or even actually introduced into school work. The demand for education for citizenship has been chiefly met until the last decade by the introduction of the study of history, civics, and economics into the school, the inculcation of patriotism by various forms of exercises and by the insistence upon the moral aim of public school work. Within the last few years the same ideas have resulted in a demand for an economic training of the most practical kind and for the actual introduction of industrial training into the school curriculum. Especially, in our large urban communities, with great numbers of foreign emigrants, is it recognized that this is one of the first essentials of good citizenship, and that it must become a function of the school.

Some explanation of this change, as found in social conditions, needs to be sought for. Since the opening of the eighteenth century all wars, formerly produced by religious or purely political conditions, have been at basis economic. Within the present century most treaties and most international relations have been determined by economic conditions. The great need for national and colonial expansion, the dominant motives of nations at present, is caused by economic conditions; the power, the stability, the influence of a nation depends upon its economic status. The rivalry between nations at the present is predominantly an economic one. The one qualification of good citizenship that

is coming to take precedence over all others is economic productiveness. The wealth of nations and the per capita wealth of citizens has increased tremendously in recent times. The economic productiveness of individuals has increased in a similar way. The training in this productive power has, however, been left for the most part to individual initiative. This is especially true in our own country. Here the great demand was that things should be done quickly; in the overcoming of great obstacles the thing that was demanded was rapidity and ultimate success. Material has been so cheap, the forces of nature so generously bestowed, that in almost every case initiative, ingenuity, industry, were the only requisites. Economy in other respects was no saving. As is evidenced by the rebuilding of railway lines and of larger manufacturing plants, by the rejection of machinery and often of entire plants not worn out but simply out of date, by the relegation of old inventions to the rear, by the increasing demand for young men with scientific training in place of old men with practical experience only, — all this is now being changed. The one thing that rival nations, rival regions, rival firms, are now coming to rely upon as an offset or a means of equalization to climatic conditions, racial characteristics, cost of living, cost of raw material, is specialization in economic, technical, and commercial education.

On account of the greater intensity of this industrial rivalry, most European countries have responded more immediately to this new demand than have we in America. Of all nations France has made most radical changes in this respect. Agricultural instruction is given in every rural school, manual or technical training in every urban school. Needlework, cooking, horticulture, and in localities special technical subjects of local interest are taught. School museums, school gardens, school libraries, are more generally provided than in any other country, in the endeavor to relate the school immediately to practical life. In England among the subjects for which

payment is made by the government and which are quite generally adopted are cooking, sewing, manual training. Other subjects not so generally incorporated, but still subsidized, are domestic economy, laundry work, dairy work, cottage gardening, and "suitable occupations" adapted to particular localities. The same variation in the special subjects adopted occurs in English schools that does in American schools. Dutch schools include instruction in dairying and various local industries. The Swiss provide, either in the elementary schools or in supplementary schools, for technical training in every one of the industries peculiar to their country. In Germany the tendency to introduce technical subjects into the elementary grades has not been so general. Needlework has been generally accepted; manual training less so.

But in Germany this tendency is seen at its best in the continuation schools, night schools, and various types of secondary technical and trade schools of the greatest variety, now to be mentioned. It is in technical instruction in higher fields that most progress has been made of recent years. These are in addition to and even of a more practical kind than those engineering schools, chiefly of collegiate and university grade for professional training, that have been referred to previously. Technical schools, training for almost all lines of industry and trade, have followed. Among these are schools of design, of textile weaving, of pottery making and design, of dyeing, and of all forms of practical chemistry. Of a more general character are those schools (the *Baugewerkeschulen*) that admit students of practical experience to courses dealing with the principles and practices of building construction, the nature of materials, mechanical and free-hand drawing, modeling, science, mathematics, etc. Many different types of these schools exist in all continental European states, but most numerously in Germany and Austria, and all are supported by the state. Some give direct training in the trades (*Fachschulen*). Less technical are the industrial

schools (*Industrieschulen* and *Gewerbeschulen*). The industrial and applied art schools (*Kunstgewerbeschulen*), and more important still the continuation schools (*Fortbildungschulen*), continue the work of the elementary school along all these practical lines. School sessions are held on week days, on Sundays and on evenings. Allied to these are the commercial schools of secondary and even university grade. In this respect, as in all others, Germany, with its schools at Cologne, Munich and other places, was first in the field and ever in the lead. Except in the cases of the scientific or engineering schools in connection with the leading universities and a few technical and trade schools, usually of secondary grade and always under private auspices, little has been done in the United States. Great Britain, on account of the immediate character of this industrial competition with the German countries, has responded much more quickly, and has a very extensive system of industrial and trade schools or classes for evening instruction.

In the United States progress is being made along two lines; one is the direct establishment of industrial schools, which will soon be incorporated in the work of the public schools, at least as evening schools; the other is in the modified character of the manual training instruction so generally given. This work, introduced quite generally since 1885, first in the secondary schools of our larger cities and recently in the elementary grades of many of them, was first largely a training in processes of construction, analyzed into its parts. Its object for the most part was to train the senses and to develop the power to work with objective material. More recently still there prevails the idea of Sloyd work, appealing to the interests of the child through the construction of a completed object and of something useful or ornamental in the home. But the present tendency seems to be definitely toward training in trade and craft processes.

Thus through the subject of nature study, study of agri-

culture, sewing, manual training in the grades; through commercial high schools, trade schools as yet supported by philanthropic enterprise, commercial and industrial courses in high schools, evening schools, manual training high schools, in the secondary field; through colleges of commerce and schools of applied sciences, either initiated or projected in the higher fields, the educational system of the United States is responding to this most recent social demand upon education which has already such remarkable response in European countries.

Thus is the politico-economic tendency shifting from the political to the economic basis in education. The significance of the Froebelian philosophy of education in placing such industrial and constructive work on a rational pedagogical basis has been mentioned (pp. 640, 659). This offers the chief explanation of the fact that it is the Froebelian idea of education that is coming to prevail in the present.

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TOPICS FOR FURTHER INVESTIGATION

1. What in detail are the sociological aspects of the educational theory of Pestalozzi as discoverable in his writings? Of Herbart? Of Froebel?

2. To what extent does Pestalozzi's practical work possess direct sociological significance? Herbart's? Froebel's?

3. To what extent does the sociological conception of education find expression in the educational writings of Kant? Of Fichte? Of Rosenkranz?

4. What is Herbert Spencer's conception of history and to what extent is it correct? To what extent has the writing of text-books and of historical treatises been modified in accordance with these ideas?

5. What were the educational ideas of Franklin? Of Washington? Of Jefferson? Of Madison?

6. To what extent did these men or any one of them participate in the educational activities of his times?

7. Is the definition of education in terms of citizenship sufficient?

8. State more in detail the conception of education given in the sociological writings of Comte. Of Ward. Of Spencer. Of Mackenzie. Of Vincent.

9. Give in outline the substance of the school laws of Prussia of 1763 and of 1790. What has been added since?

10. What concrete educational results were due to the efforts of Frederick the Great? Of Maria Theresa? Of Duke Ernst of Gotha-Altenburg? Of the French Revolutionary Conventions?

11. What is the history and what the present success of compulsory education in Prussia? In the United States?

12. Trace out in any given locality the work of the various school societies named, or of any one of them.

13. Give an outline of the Lancasterian school movement in the United States. Of the Fellenberg movement. Of the Infant school movement.

14. To what extent was the early Sunday school movement in England or in the United States related to secular education?

15. Describe the educational methods of the Lancasterian schools. Of the Fellenberg schools. Of the Infant schools.

16. Trace the development of the idea of free schools in any one American commonwealth.

CHAPTER XIV

CONCLUSION: THE PRESENT ECLECTIC TENDENCY

GENERAL CHARACTERISTICS.— The educational thought of the present seeks to summarize these movements of the recent past and to rearrange and relate the essential principles of each in one harmonious whole. The educational activity of the present seeks the same harmony as it reduces these principles to practical schoolroom procedure. All the varieties of experimentation, all of the frequent changes in subject-matter, in method, in organization, while they bring their evils and appear as curious phenomena to conservative educators of more stable societies, have yet this significance: they are recognitions that new principles have been formulated, new truths recognized, and that practice controlled by tradition or by principles derived from a partial view alone must be readjusted in closer accord with the new truths derived from the ever expanding knowledge of life and of nature.

FUSION OF PSYCHOLOGICAL, SCIENTIFIC, AND SOCIOLOGICAL TENDENCIES. — To this eclectic view of education the three tendencies in the educational thought of the eighteenth and nineteenth centuries have contributed. In the main the psychological contributions have related to method; the scientific to subject-matter; the sociological to a broader aim and a better institutional machinery. And yet each movement has exerted some influence on method, on purpose, on organization and on subject-matter. The most prominent contributions of these movements can be summarized

in a few sentences. From Rousseau came the idea that education is life, that it must center in the child and that it must find its end in the individual and in each particular stage of his life. From Pestalozzi came the idea that efficient educational work depends upon an actual knowledge of the child and a genuine sympathy for him; that education is a growth from within, not a series of accretions from without; that this is the result of the experiences or activities of the child; consequently, that objects not symbols must form the basis of the process of instruction; that sense perception, not processes of memory, form the basis of early training. From Herbart came the idea of a scientific process of instruction; a scientific basis for the organization of the curriculum; and the idea of character as the aim of instruction, to be reached scientifically through the use of method and curriculum as defined. From Froebel came the true conception of the nature of the child; the correct interpretation of the starting point of education in the child's tendency to activity; the true interpretation of the curriculum as the representation to the child of the epitome of the world's experience or of the culture inheritance of the race; and in general the first, and as yet the most complete, application of the theory of evolution to the problem of education. From the scientific tendency came the insistence upon a revision of the idea of a liberal education; a new definition of the culture demanded by present life; and the insistence stronger than ever when reënforced by the sociological view, that industrial, technical, and professional training be introduced into every stage of education and that it all be made to contribute to the development of the *free* man, — the fully developed citizen. From the sociological tendency came the commonly accepted belief that education is the process of development of society; that its aim is to produce good citizens; that this is accomplished through the fullest development of personality in the individual; that this development of personal ability and character must fit the

individual for citizenship, for life in institutions and for some form of productive participation in present social activities; in a word, that one must learn to serve himself by serving others.

CURRENT EDUCATIONAL TENDENCIES. — A more profitable and more concrete summary of the past can be made in terms of present tendencies. Most evident of all to the teacher are the many changes now being made in the curriculum, in the attempt to make it expressive of present social activities and aspirations. Such changes are chiefly an outgrowth of the sociological tendency. Following this there is the effort toward making educational method and the procedure of instruction more definite, more scientific, and more universally followed. This requires the further preliminary training of teachers and continuous professional study by the teacher and oversight by the supervisor throughout the teaching experience. This, above all, is the result of the psychological tendency. Connected with this change is the correlated tendency to closer articulation of subjects within the curriculum and of the various types of schools within the system. This is a result of the recognition of the significance of education as a social process, of the more scientific character of schoolroom work, and of the more general attention to administration and the perfection of institutions. Hence there is at present a combination of psychological, scientific, and sociological influences.

The growing centralization in school administration and the more thorough and scientific school supervision are the outcome of new economic conditions bringing about centralization in all lines of social activities and a specialization in all lines of work. The latest phase of this tendency to specialization is revealed in all the professions, among them that of teaching. This results in another tendency, — the recognition of teaching as a vocation and as a profession

with higher and more definitely recognized standards. This recognition depends primarily upon two conditions; namely, the demands for higher qualifications by those who employ teachers, and the incorporation of instruction in education and training in teaching into the professional work and cultural investigations of higher institutions of learning.

One of the present tendencies gives rise to, as well as solves, an important educational problem. The complete secularization of schools has led to the complete exclusion of religious elements in public education, and the very general exclusion of the study or even the use of the Bible and all religious literature. Thus the material that a few generations ago furnished the sole content of elementary education is now entirely excluded and a problem of very great importance — that of religious education — is presented. Little or no attempt at solution is being made and little interest aroused. The problem for the teacher comes to be quite similar to that formulated by the Greek philosophers, to produce character through an education that is dominantly rational and that excludes all recognition of the traditional religious element. It does not assist in solving the problem, to deny that as a people through our schools we have definitely rejected revealed religion as a basis for morality and seek to find a sufficient basis in the development of rationality in the child. One most important phase of education is left to the Church and the home, neither of which is doing much to meet the demand.

This tendency exists along with another, which might seem to be contradictory, — the expansion of the scope of school work. Much of the work recently included within the scope of schoolroom instruction is yet inadequately organized and hence indifferently presented. Unsatisfactory results follow. But undoubtedly the need is simply for more experience. What new social conditions have demanded, new school conditions must supply. The work of the school

can no longer be restricted to the merest rudiments or instruments of learning; what is now demanded are the rudiments of living, the instruments needed for successful life in complex modern civilization. The most prominent phase of this tendency of the present is the incorporation of the industrial element in all school work. This argues a radical reshaping of our idea of education as well as of the instructing process. Education is to be broader, schoolroom instruction more helpful, more immediately practical, more directly related to conduct, and hence more moral. Whether this is a great concession to materialism or not, cannot be discussed here; whether it is, in any individual case, depends for the most part on the teacher. This new tendency which bids fair to increase far beyond present experience is wholly in answer to new social demands. And society must accompany these demands with a corresponding service, — liberality in the support of education greater than ever shown before. The expenditures for education in the present are unprecedented; but they are not to be a precedent for the future; the tendency is toward much greater expenditures in the future. And if much more is given, much more will be required.

Thus the movements characteristic of the past, which we have sketched in greater detail, are working themselves out in these tendencies of the present.

HARMONIZATION OF INTEREST AND EFFORT. — The eclectic character of present educational thought and practice is shown not only by the fusion of the psychological, scientific, and sociological views of education, but also by the endeavor made to unify in theory and in schoolroom procedure the elements of interest and effort. The long period of peace, during which the conception of education as effort or as a discipline prevailed, was succeeded by a period of conflict between the idea of education as discipline and the idea of education as a natural process determined wholly by the

interests of the child. Both practical experience and further theoretical investigation are showing that the interpretation of education from the point of view of interest is as partial as the old interpretation of education as discipline; consequently the present tendency is one of reconciliation, of harmonization of interest and effort, as the basis of educational practice. The period of conflict occupied the second half of the eighteenth and practically all of the nineteenth century. The period of reconciliation of the two conceptions in our own country is practically that of the present generation.

Interest is essential as the starting point of the educative process; effort is essential as its outcome. The purpose of appealing to the interest of the child is to lead him to the point where he will put forth effort to master the unsolved problems, the undetermined relationships of his environment, whether of the schoolroom or of life. The object of the old education of effort was to develop in the child the power of voluntary attention, of application, of strength of will, that would enable him to overcome the obstacles or to accomplish the tasks of each day's experience. The object of the new education of reconciliation is to reach the same end through immediate appeal to spontaneous attention and to the native interests of the child. The old, like Aristotle's solution (p. 152), was valid only for the comparatively few who were of such native ability as to profit by the training; the new, by building upon the essentials of human nature itself, seeks to secure that development for all. In both, the purpose is to produce that motivation in moral judgment and that power of accomplishment in action, the combination of which is character. The aim of the new, no less than of the old, is to produce "that making in the selection of the good and the rejection of the evil which we call character" (p. 631).

Neither interest nor effort is an end in itself; neither interest nor effort alone is a sufficient guide to the educative process. Interest is the condition of mind arising out of the

child's own powers and needs in response to stimuli from his environment; effort is the other side of the same situation and represents the discharge in response to the stimuli,—a response that calls for a greater expenditure of energy than can be sustained by the original exciting interest. What is aimed at in education through a use of or combination of both interest and effort is the production of a type of mind, or rather of the whole being or nature of an individual, that includes power of rational insight, of deliberation, of independence of judgment, of firmness of decision, and of effective action. To secure this, both interest and effort must be depended upon or called forth in the educative process.

The problem of the schoolroom, then, is neither by authority to hold the child to the mastery of certain tasks which are uninteresting in themselves and from which his attention is withdrawn the moment the external pressure is removed, and thus to develop will power and moral character; nor, on the other hand, is it the work of the school so to surround the needed activities or learning processes with factitious interests as to sugar coat the pills of schoolroom tasks. The harmonization of the problem of effort and interest consists in so relating the tasks of the schoolroom to the real life and activities of the child, by drawing them directly from the life activities of the child and of society, that he grows into his fuller adult self through assimilation into his own personality of that which is, and which he recognizes to be, an essential part of the life of society around him. This activity is effort; interest consists in arousing in the child the realization of its vital relation to his own life. Personality is expanded and character developed as this possible relationship is developed into a normal and an abiding reality in the life of the individual.

THE MEANING OF EDUCATION, as conceived in the present, is found in this harmonization of interest and effort

This is but another attempt to solve the problem of the individual and of society, which, as we have seen, has been the educational problem as it has been the ethical problem, from the beginning of human life. How is the individual to be educated so as to secure the full development of personality and at the same time preserve the stability of institutional life and assist in its evolution to a higher state? It is the old problem of relating the one and the many; of securing individual liberty and social justice. Interest and effort give in modern form Aristotle's problem of well-being and well-doing. Interest, representing the emphasis or the factor of individualism, is an outgrowth of the naturalistic movement of the eighteenth century; the education of effort is the survival in conservative circles of the old education of authority expressive of the religious and social views prevalent since the Reformation period. These views have survived longest in educational institutions that are controlled by religious denominations or by certain dominant classes in society, as in the English public schools and universities.

The definitions of education throughout this earlier period were given in terms of training for institutional or social life (Chapter IX). The definitions of education acceptable to the new thought of the nineteenth century were those couched in terms of individual development, as that of Pestalozzi's (Chapter XI).

The meaning of education, as at present conceived, is found in the attempt to combine and to balance these two elements of individual rights and social duties, of personal development and social service. The meaning of education in the present finds its whole significance in this very process of relating the individual to society, so as to secure development of personality and social welfare. It is true that for the last two decades the tendency in thought, in reaction to the extreme emphasis on interest and on individualism, has been to stress the social factor. Education has been defined

as preparation for citizenship, as adjustment to society, as preparation for life in institutions, as the acquisition of the racial inheritance.

But definitions more acceptable to present thought seek to combine both factors and to find a harmonization of them in the nature of the educational process. Thus Professor James, from the psychological and hence individualistic point of view, defines education as "the organization of acquired habits of action such as will fit the individual to his physical and social environment." President Butler's view emphasizes the sociological view but gives both elements. It is that education is the "gradual adjustment of the individual to the spiritual possessions of the race." These factors are more closely related in Professor Horne's definition, which clearly reveals this eclectic tendency as including the psychological, the scientific, and the sociological elements in our present thought of education. This definition is as follows: "Education is the superior adjustment of a physically and mentally developed conscious human being to his intellectual, emotional, and volitional environment." The one who has done more than any one else to elaborate this eclectic view of education that harmonizes the conflicting ideas of the old tendencies and in whose writings a fuller presentation of many of these points stated will be found, is Professor John Dewey. He defines education as "the process of remaking experience, giving it a more socialized value through increased individual experience, by giving the individual better control over his own powers." Here both individual and social factors are emphasized and harmonized. From whatever interest, whether practical or theoretical, or from whatever line of investigation the problem of education is now approached, its meaning is given in some terms of this harmonization of social and individual factors. It is the process of conforming the individual to the given social standard or type in such a manner that his inherent capacities are developed.

his greatest usefulness and happiness obtained, and, at the same time, the highest welfare of society is conserved.

THE CURRICULUM. — As interpreted from the point of view of this new meaning of education, the curriculum is no longer a sacred inheritance, possessing absolute and permanent validity, the contents of which the child must master in order to attain to an education and to be admitted to the charmed circle of the cultured. The curriculum becomes but the epitomized representation to the child of this cultural inheritance of the race, — of those products of human experience which yet enter into the higher and better life of man and which the present generation esteems to be of value to the individual and of worth to society as a whole. Such an appraisement of the values of life must change from generation to generation, if there is to be progress in life; if life in the present has any value in itself beyond mere existence, culture cannot be the same for the twentieth century that it was for the eighteenth. The formal statement of the elements of character must remain much the same; the concrete content must vary as life varies. The curriculum must present to the child in idealized form, present life, present social activities, present ethical aspirations, present appreciation of the cultural value of the past. Only as a part of present life, that is only as it touches the present life of the child through the life of society, can it call forth that interest which is essential to the educative process. Hence as a result of the historical studies we have pursued, it appears that the curriculum must be adjusted constantly, though very gradually, so as to reorganize the old culture material and to include the new. The curriculum is the child's introduction to life, as schooling is the preparation for it. The curriculum, then, must really introduce to life as it is and as it should be; the school should actually prepare.

METHOD. — From the same historical point of view the nature of method is more readily seen and, in a sense, its function simplified. Method is the process of using this culture material so as to produce the desired development of the child; a development which will include the expansion of his own powers, the creation of control over them and the direction of them to the necessary, to the useful, and to helpful social activities. Method is the regulation of this process by the teacher. Method is the guidance of the child in his activities by the teacher so that he may incorporate into his own experience that portion of the experience of the race which, to those who have the direction of his education, seems valuable; that is, suitable for his stage of development and similar in complexity to his own interests and activities. The sole effort of the teacher should be directed toward the guidance of this process; his sole interest should be in the expanding consciousness of the child, in furnishing experiences appropriate to the power of the child and properly related to his interests and activities. The teacher should be so equipped by previous training that he can give undivided attention to this process. Hence the necessity of *method*, as the term is ordinarily used. This method should be possessed by the teacher, but it is of most value when most unconsciously used. Method in the broader sense requires upon the part of the teacher a knowledge of the child; a knowledge of his existing interests, activities, and possessions; a mastery of the material or the subject-matter dealt with; an understanding of the process through which the child incorporates the novel experience into his own; and an ability to use and to make subordinate the machinery of the schoolroom and the technique of the process of instruction. This last alone is considered method *par excellence*, but it is only one phase of method. Thus, this broader eclectic view, as shown by historic survey, includes psychological method, scientific method, sociological method, schoolroom method or technique;

and all should be considered as essential in the preparation of the teacher for his work.

THE PERMANENT PROBLEM. — The problem of education is to transmit to each succeeding generation the elements of culture and of institutional life that have been found to be of value in the past, with that additional increment of culture which the existing generation has succeeded in working out for itself; to do this, and also to give to each individual the fullest liberty in formulating his own purposes in life and in shaping these to his own activities. The problem of the educator is to make the selection of this material that is essential in the life of the individual and essential to the perpetuity and progress of society, to construct it into a curriculum, to organize an institution to carry on this great process, and to formulate the rules and principles of procedure which will actually accomplish the result. The problem of the school is to take the material selected by the educator, to incorporate it into the life of each member of the coming generation so as to fit him into the social life of the times, to enable him to contribute to it and to better it, and to develop in him that highest of all personal possessions and that essential of a life satisfactory to his fellows and happy in itself, which we term character. Character in this sense demands on the part of the individual a knowledge of the best of the past and the present upon which to base rational action; sympathy for one's fellows and a good will that will give the proper motive to conduct; and a power of accomplishment, of turning ideas and motives into deeds, that will make efficient members of society. The problem of society is to maintain this expanded work of education liberally and effectively and by more generous support to remove the teaching profession from those competitive conditions which tend to bring its efficiency to the lowest rather than the highest standards and which tend to base the remuneration and

social reward of the teacher upon such conditions as prevail in the workshop and the market rather than upon those which operate in the professions. Based upon his knowledge of this culture product of life and of the method of incorporating it into the lives of the young — in other words, of teaching, — guided by sympathy for the child and good will for society, produced by his own training and the result of his own experience, the problem of the teacher is to develop character in the child out of the material and the processes furnished by the school.

To do this, year after year, with each individual of the group which falls to his or her lot is the ever solving, but never solved, problem of education.

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